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THE UNIVERSITY OF ALBERTA

OBSERVED BEHAVIORS OF CLINICAL NURSING INSTRUCTORS

by

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ABSTRACT

The problem of this study was to register, record and analyze actual observed behaviors of nursing instructors while interacting with a student and a patient in the clinical setting. Four clinical instructors in a diploma nursing program at a large urban teaching hospital were observed and their verbal interaction was tape recorded during all instructor-student-patient interactions occurring during an eight hour period.

The analytical framework of this study was developed from the data itself. Items of behavior, isolated from the tape transcriptions and narrative notes of the observer were described and grouped by direction: to patient, student or other; and type: question, statement or action. All behaviors were then described and grouped according to type. Twenty-two different behaviors were generated: six types of questions, nine types of statements and seven types of actions.

The twenty-two behaviors could be directed to the patient, the student or others producing 66 possible behavior combinations.

One thousand seven hundred and seven behaviors were coded in the 66 possible categories and analyzed according to percentage use of each behavior as well as by percentage use of each behavior per instructor.

The results of the analysis were: 1. most observed behaviors of the clinical instructors were directed to the student; 2. instructors used more statement behaviors than questions or actions; 3. most questions asked were of a closed variety; 4. most statements used were to give the student positive acknowledgement, followed by direction and

information giving; 5. non-verbal behaviors did not have a pattern of frequency of use and 6. behaviors directed toward the patient were mainly closed questions, fact giving, positive acknowledgement or regulatory in nature.

The conclusion reached following this study was that clinical nursing instructors involved in this study used similar types of behavior in the clinical setting, which could be observed and recorded to produce a graphic presentation of what they actually did.

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CHAPTER I

INTRODUCTION

During the first half of the 20th century, student nurses learned their skills by an apprenticeship method. The work hours were long, the theory was short and supervision was by peers and staff nurses. Full time nursing teachers were introduced to enrich the student's clinical learning experience. The teacher organized clinical rotations and taught classes and ward staff and senior students continued to provide clinical supervision.

Transferring the responsibility for the education of nurses from the hospitals to educational institutions has resulted in a great decrease in the number of hours student nurses spend in the clinical setting. Trial and error is no longer the norm. Skills are learned and practiced in laboratory settings and clinical sessions are to integrate knowledge and skill in a realistic setting.

Today the clinical instructors carry the major responsibility for the education of student nurses in the class, the laboratory, and on the hospital ward. Clinical instructors generally have a minimum qualification of a Bachelor of Nursing Degree.

The role of clinical instructor is still unclear. It is a job carried out alone. Clinical instructors confer with colleagues, but rarely work in pairs or observe each other. Their own education most likely did not include any specific instruction in clinical teaching and very little has been written about it.

Research into classroom teaching, within the general education system, is plentiful. The findings from this area are often as generalizable to nursing as to science or mathematics or other courses within the classroom setting.

Although much has been written concerning clinical teaching generally (Clissold, 1962; Hinchliff, 1979; Schweer, 1972), most often the authors' ideas and beliefs are not substantiated by research (Daggert, Cassie, & Collins, 1979).

Classroom instruction encompasses multiple variables, e.g., characteristics of the teacher, characteristics of the students, characteristics of the physical space and characteristics of various outside forces, not to mention the learning tasks and the subject matter (Franzen, 1978). These variables have complicated the issue of evaluation because they are difficult to measure. Difficulties encountered in the evaluation of classroom instruction will only be compounded when evaluation of clinical instruction is undertaken. In the clinical setting the instructor has even less control over the environment and the participants than in the classroom setting. In the clinical setting the experience cannot be repeated or controlled specifically for the teaching of the student nurse (Jacobson, 1966).

A review of the literature on classroom evaluation indicates that initial correlation studies on teacher effectiveness have not been very productive. According to Smith and Meux (1970: 13), the complexity of teaching (number of independent variables), and the lack of understanding of the phenomenon called "teaching" have led to this position:

> The failure of such studies to yield a body of consistent knowledge about instruction indicates that perhaps they are premature; that more direct and primitive analysis of teaching behavior are needed as a preface to correlative and experimental studies.

Since the early 1960's classroom observation research has been increasing. Simon and Boyer (1974) presented 99 observation tools which have been designed to assist in describing and analyzing classroom behaviors. None of these tools could be used on its own to describe clinical nursing instruction because they deal only with the teacher and learner. In nursing, the patient is also an integral part of the learning interaction in the clinical setting.

Before an observation tool to describe clinical nursing instruction can be designed the nature of the event must be documented.

RESEARCH PROBLEM

The research problem of this study was to register, record and analyze actual observed behaviors of nursing instructors while interacting with a student and a patient in the clinical setting.

Subproblems

1. To identify patterns of instructors' behaviors either on an individual basis or as a group.
2. To develop a behavioral observation tool.

Definition of Terms

Clinical instruction. Clinical instruction is "Any educational situation in which the student, with teacher guidance and assistance

participates in an experience with a patient which is directed toward facilitating the student's learning" (Glass, 1971: 48).

Other definitions of clinical instruction often include activities occurring in the clinical setting which do not involve the patient, e.g., group conferences, individual demonstrations, etc. These activities are not included in the study, not because they are unimportant, but because they relate more closely to classroom instruction than to this definition of clinical instruction.

Clinical instructor. An instructor of nursing who supervises, guides and evaluates student nurses in the clinical setting. The terms, instructor and teacher, will be used synonymously in this study.

Teaching behavior. An observable action (verbal or non-verbal) by the clinical instructor which can be differentiated from other action is the unit of teaching behavior. Non-verbal actions and verbal intonations of a nature not easily subject to reliability testing, e.g., facial gesture, sarcastic tone, etc.,will not be included. These behaviors are not those of clinical instruction but those of an individual style and are of a subjective nature.

ASSUMPTIONS

It was assumed that:

1. Clinical instruction behaviors are observable.

2. Clinical instruction behaviors are characterized by some degree of consistency.

DELIMITATIONS

This study was delimited to the observation of four clinical nursing instructors in one diploma nursing program, while they were involved in triadic inter-actions involving a student nurse and a patient.

This study was exploratory and descriptive. No attempt was made to place an evaluative measure on any teaching behavior.

LIMITATIONS

This study was limited by:

1. The ability of the observer to register and record all verbal and non-verbal teaching behaviors.
2. The number of observations.
3. The restriction of analysis to only one participant's behavior (the instructor's).
4. The degree to which behavior could be influenced by the presence of an observer.
5. The degree to which generalizations could be made from descriptive data.

IMPLICATIONS

A behavior observation tool could have many practical uses, once its reliability has been assured through testing. This study leads quite naturally into frequency testing of behaviors and cross variable analysis, i.e., which variable in the student, instructor, patient or environment correlates with high or low frequency of specific clinical instruction behaviors.

Use of the tool may help in the establishment of behavioral norms; in comparing behavioral differences; in providing feedback for the purpose of improving skills and in providing a means for building and testing behavioral theory.

ORGANIZATION

The thesis consists of five chapters. The first includes the introduction and presentation of the problem. The second consists of a review of the existing literature on the characteristic of the nursing, medical and dental clinical instructor and research into this area.

The methodology of the study is described in chapter three in relation to sampling, instrumentation and data analysis procedures.

Chapter four is a presentation of data analyses by behavior and subject. A sample observation tool is included.

Finally, chapter five includes a summary of the study, conclusions, implications for use, as well as suggestions for further research.

CHAPTER II

LITERATURE REVIEW

Research in clinical teaching is scarce. That which has been published is mainly medical or dental in orientation, but as Daggert, Cassie and Collins (1979: 152) noted:

> From such a review, [of studies which consider the effectiveness of clinical teaching] new directions for future research should emerge which are applicable not only to medicine, but to any of the helping professions where an instructor is responsible for the training of students, who in turn are responsible for service to a patient or client.

The nursing, medical and dental literature pertaining to clinical instruction was reviewed to determine what behaviors of clinical instructors have been identified. These behaviors were extracted from the literature and grouped according to similarities of intent, for nursing, medical and dental publications separately. Similarities and differences of characteristics identified in each field were examined and possible use of such characteristics postulated.

NURSING RESEARCH ON CLINICAL TEACHING

Nursing has a large literature concerning clinical teaching but very little of it is substantiated by research. Many of the ideas presented are mainly characteristics of good teachers or "role models" drawn from the authors' own ideas or from critical incident reports of others.

Sixteen articles using such techniques were found that related

to clinical instruction in both diploma and baccalaureate nursing programs. Only one of these writers (Manion, 1969) performed a limited "observation testing" of her characteristics.

The large majority of the characteristics identified were described in subjective terms, e.g., conveyed interest in her students, did not pose a threat, demonstrated confidence in students.

Loretta Heidgerken, in The Nursing Student Evaluates Her Teachers (1952: 7), described a study "to try and determine what personal qualities of the teacher and the teaching activities the nursing student feels the most important in the school of nursing". She asked 384 senior nursing students in 37 schools of nursing to write descriptive essays on a teacher whom they considered superior and one whom they considered inferior without any specific direction except to give concrete examples of each quality or teaching activity.

The author read the essays and set up categories of items called: A. Personal Qualities, subgrouped 1. interest, 2. preparation and background of teacher, 3. personal attributes of the teacher; 4. student-teacher relationship, and; B. Teaching Activities, subgrouped 1. preparation and organization of class, 2. presentation and development of class, 3. discussion and questioning and 4. evaluation.

The 51 items on Heidgerken's scale ranged from very specific, e.g., "reviews tests with students in class after they are graded, pointing out basis for grading," to very general, e.g., "exemplifies a truly professional nurse." Many of her items were found in scales developed later but some, usually very specific items,were never used

again, e.g., "uses illustrative material frequently" or "friendly, approachable, easy natural manner."

Heidgerken's work was the first study of its type in the field of nursing. The researchers in the general education sector were also very concerned with personal qualities of the teacher at this time. Since then the focus of study moved to the characteristics of the student and then to the teaching process itself (Medely, 1979; Wallace, 1978).

By 1960 the evaluation paradigm consisted of all three foci, labelled: presage, product and process (Mitzel, 1960). As indicated earlier, useful correlates have been scarce with this type of research and more descriptive field studies followed.

In 1965, Barham published "Effective Behaviors of the Clinical Instructor through Critical Incidents". She did not designate which characteristics applied to clinical instruction and which to classroom instruction. She assembled these behaviors from 362 reports of observed incidents of effective and ineffective behaviors involving nursing instructors in 13 junior community colleges in California submitted by 178 respondents (composed of directors, instructors and students).

The following year Jacobson (1966) published the results of a group interview study using 961 students' reports of instructors in five university nursing programs. Jacobson cited Barham's study but insisted that the student was the pertinent measure of the teacher's effectiveness. The 58 requirements for effective teaching were all stated in a positive form, e.g., "being considerate of students' time," "constructive evaluation conferences." No differentiation was made into classroom and

clinical teaching although Jacobson indicated that some requirements were specific to patient care. Like Barham, she gave no indication as to how one would know if a required behavior was being met.

Kathleen DeMarsh (1967) studied "Leadership Behaviors of Clinical Teachers in Diploma Schools of Nursing". The definition of leadership used in this study was broad enough to imply, as DeMarsh actually did, that a clinical instructor by definition is in a leadership position and therefore everything she does is seen as leadership behavior whether effective or ineffective in its contribution to the learning activity of the student.

In effect, DeMarsh focused on the same problem as the one in this study, but she used a different starting point and methodology. In her summary, Ms. DeMarsh (1967: 137-138) said:

> In designing the study it was anticipated that an examination of the observed behaviors of clinical teachers perceived to have been effective or ineffective in maximizing the learning experience of students in particular clinical situations would be helpful in the following ways:
>
> 1. In bringing to light some of the complexities of the clinical situation in which the student learns and the teacher teaches.
>
> 2. In identifying areas in which students would seem to be particularly vulnerable to the interpersonal influence of the clinical teacher and vice versa.
>
> 3. In formulating critical requirements for effective leadership behavior in clinical teaching situations.
>
> 4. In identifying specific areas in which further more definitive research is indicated.

The methodology used involved critical incident reports. Six hundred and thirteen reports were collected from 310 participants (head nurses, clinical teachers and students) from nine diploma schools of nursing in central Canada.

A total of 15 behaviors were identified and divided into four main categories:

a. demonstrating, explaining or discussing nursing methods or skills,

b. supervising the nursing practice or students,

c. using unanticipated learning opportunities, and

d. affecting harmony and morale of staff and students.

In 1968, Mary Joseph Alexander completed a master's thesis at the University of Western Ontario entitled, "Effectiveness of Clinical Instructors as Perceived by Nursing Students". The study involved the application of a student rating scale used by general education students at Purdue University to 11 clinical nursing instructors at two Canadian Universities, one in Ontario and one in Quebec. Alexander found such wide variation in results of individual teachers irrespective of age, educational background and experience that she concluded that the relationship between teacher behaviors and the effect that they produce on the student must be observed individually. This was one way of saying that the scale used was not appropriate to the population studied.

The next report was not published until 1970. Butler and Geitgy (1970) agreed with Jacobson that the student was in the best position to judge the effectiveness of teaching and the ability of their

instructors because they judged informally anyway, and because educational studies in their view had validated this point. Their instrument differed because they felt that the characteristics they had identified were in actual behavioral terms. They grouped 33 characteristics developed from the literature into three categories: cognitive, interpersonal and professional competence. The terms of reference were not defined, and these characteristics were applicable to both classroom and clinical teaching.

Lowery, Keane and Hyman (1971) carried out a study to see if students and instructors agreed that the student was the one who should evaluate the instructor's ability to teach. The instrument they used to test their hypotheses was a composite of items of effective teaching found in the literature. They cited Butler and Geigty (1970), but not Barham (1965) or Jacobson (1966). Several of their sources were related to student rating scales of teachers in the general education system. The items themselves were not tested for ability to be observed or accuracy of description of teaching, rather the objectivity of student evaluation and the ability of the student to evaluate, in the eyes of both the student and the teacher, were tested. They concluded that "both the faculty and students tend to agree that students should evaluate faculty" (Lowery et al., 1971: 438). Faculty felt though that student evaluation of them would lack objectivity while students felt that they would be moderately objective. Of interest was the conclusion that both faculty and students felt that evaluation should be of "performance on interpersonal elements, openness in communication, personal warmth, enthusiasm and knowledge of subject" (Lowery et al.,

1971: 439).

Karen Rauen published her research on "The Clinical Instructor as Role Model" in 1974. She developed The Clinical Instructor Characteristics Ranking Scale (CICRS) "from literature written by educators in the nursing field," citing Jacobson (1966) and Barham (1965). The scale was presented to 84 diploma nursing students for priority ranking."The most important priority characteristic demonstrates 'how to function in a real nursing situation' for senior students and 'shows a contagious enthusiasm for giving quality patient care' for freshman students" (Rauen, 1974: 37).

A comparison of undergraduate students in nursing and in education, as to their opinion of the importance of various characteristics of good instruction, involved the design of a tool listing effective characteristics of teaching by M. Kiker (1975). The tool itself was not tested for reliability of description or ease of evaluation and the characteristics were drawn from a literature review. Jacobson (1966) and Butler and Geigty (1970) were both cited. Kiker (1975: 733) presented 12 characteristics under the headings: professional competence, relationships with students and personal attributes. Her findings were that "undergraduate students in nursing and in education regard the characteristics, 'instructor's relationship with students' and 'personal attributes', in the same manner and slightly less important than 'professional competence'."

The nursing faculty in a baccalaureate program at the Houston Baptist University in Texas designed their own evaluation tool based upon the need for self-actualization. The tool was for use of "peer review

with a system of behavioral assessment rooted in principles of management by objectives" (Nash, 1977: 9). The items were generated from a literature review and brain storming sessions. Classroom and clinical evaluation had separate sections as did professional role fulfilment. The items for clinical evaluation were behavioral in terms but were very broad, e.g., "assumes responsibility for teaching on clinical unit," and "supervises student activity and nursing care." The clinical nursing instructor was evaluated on these items by a reviewer who might be "a staff nurse, a team leader, a charge nurse or other" (p. 10), indicating that a person who worked in the clinical setting with the instructor might evaluate her even though this person was not a member of the faculty. Nash's bibliography does not include any of the authors previously cited in this paper.

An Administrative Tool for Teaching Effectiveness was developed by the faculty of the Wesely Passavant School of Nursing in Chicago and published by Mufaka in 1978. The tool was based on a list of criteria for effective teaching which they had previously generated through a faculty-student survey. The tool had 11 items designated as characteristics of clinical teaching which ask the evaluator to list the instructor's strengths and limitations and comment on each item, e.g., "provides meaningful and challenging learning experiences," or "guides students in utilizing the nursing process." In discussing the benefits and problems with the tool, Mufaka (1978: 9) said: "evaluation is the most rewarding and beneficial when it is specific."

A 30 item student evaluation form was presented by Norman and Lovena (1978). It was designed to include both classroom and clinical

teaching by using such non-specific statements as, "stimulates curiosity," "interprets abstract ideas and theories clearly" and "stresses important material." The items were "a synthesis of original ideas, published articles and currently used evaluation forms" (Norman and Lovena, 1978: 32).

Page and Loeper's 1978 article on peer review presented a modified version of Butler and Geigty's (1970) scale, to make it peer rather than student orientated and to state all items in behavioral terms. They did some testing of the reliability and validity of the items by observing actual teaching situations and videotaping them. Five teachers viewed three separate videotapes of actual student-teacher interactions, and rated the teachers using the tool presented. The item "demonstrates technical skill in nursing activities" was deleted from the scale because it was felt to be a practitioner rather than a teaching behavior. The statement that "all items were modified to fit the clinical, lecture, group discussion and one-on-one types of learning situations" did not indicate whether patients were involved in the study.

A student clinical evaluation form appeared in a National League for Nurses publication called Generating Effective Teaching. Fourteen broad behavioral items were presented but no indication was given as to where the items came from or if they were ever tested. Smeltzer (1978: 22) said merely: "The evaluation tool was drafted by the Faculty Development Committee and submitted to the total faculty for suggestions and final approval." The bibliography of the article does not help in this matter.

The faculty members of the Faculty of Nursing at the University of Toronto developed a behavioral tool for use in self and peer evaluation of nursing instruction. It was not segregated into classroom and clinical instruction but items suggested an overlap, e.g., "encourages critical and independent thinking and action." The tool was tested by faculty opinion and approval. Because of the peer evaluation aspect this tool weighed heavily in areas best evaluated by peers such as professionalism and less on classroom and clinical teaching. The bibliography included by Turner (1978) did not include any nursing sources.

Wong (1978) identified nine behaviors which were found to be helpful to students' learning and seven which were reported as hindering student learning. She drew these items from her own study, a collection of critical incidents submitted by eight first year and six second year students in a two year community college nursing program in Ontario. The sample was small but her results reinforced the findings of others using this technique.

O'Shea and Pearson (1979) asked 205 students and 24 faculty to list three to five behaviors on each side of a card which had the heading "Facilitated" on one side and "Interfered" on the other. The behaviors generated were divided into three broad categories called: evaluative behaviors, instructive/assistive behaviors, and personal characteristics. The study went on with correlation of student and faculty frequency of listing particular behaviors. One problem cited by the authors was difficulty in knowing if the student and faculty intentions in using a particular term were similar, e.g., "role model."

In conclusion, the literature review of the behaviors of nursing instructors, whether in the classroom or the clinical setting, was mainly concerned with broad classifications of behavior which were generally subjective in nature. Most of these behaviors were drawn from critical incident reports and there was considerable overlap among the items from one study to another. Although the behaviors may provide an accurate description of what actually occurred in the learning situation, their actual validity has never been tested.

Characteristics of nursing instructors, found in the reviewed literature, were grouped in arbitrary categories according to similarity of intent and appear in Table 1. If designated only as classroom behaviors, they were omitted. The categories used were: interpersonal relationships, knowledge, skill, supervision, availability, self confidence, ability to motivate students, goal setting, professionalism, resource utilization, planning, atmosphere and evaluation. Grouping was done because there were so many characteristics. Characteristics with exact or very similar wording were combined and all authors identifying that characteristic were identified.

The characteristics were presented in chronological order within the categories to indicate which characteristics were identified early or later and also which ones had been used most frequently, by whom and when.

An unpublished doctoral thesis by Sr. M. Mannion (1968) entitled "A Taxonomy of Instructional Behaviors Applicable to the

TABLE 1

NURSING RESEARCH ON CLINICAL INSTRUCTION

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
Interpersonal Relationships		
1. Is respectful to students.	Heidgerken	1952
	Wong	1978
2. Recognizes individual needs.	Heidgerken	1952
	Barham	1965
	Norman	1978
3. Seems genuinely concerned with student progress and is actively helpful.	Heidgerken	1952
	Smeltzer	1978
4. Is not sarcastic.	Heidgerken	1952
	Wong	1978
5. Does not discuss personal affairs in class.	Heidgerken	1952
6. Does not have annoying or distracting mannerisms.	Heidgerken	1952
7. Displays a sense of humor.	Heidgerken	1952
	Lowery et al.	1971
	Kiker	1973
	Norman	1978
	Smeltzer	1978
8. Has a pleasant voice.	Heidgerken	1952
	Lowery et al.	1971
	Kiker	1973

TABLE 1 (Continued)

	CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
9.	Has neat personal appearance.	Heidgerken	1952
		Lowery et al.	1971
		Kiker	1973
10.	Welcomes conferences, exerts herself to be understanding and helpful.	Heidgerken	1952
11.	Communicates well.	Heidgerken	1952
		Turner	1978
12.	Friendly, approachable, easy natural manner.	Heidgerken	1952
13.	Excellent vocabulary, words come easily.	Heidgerken	1952
14.	Accepts students as individuals.	Barham	1965
15.	Empathizes with students.	Barham	1965
		Jacobson	1966
		Kiker	1973
16.	Counsels without humiliating.	Barham	1965
		Jacobson	1966
		Wong	1978
17.	Avoids humiliating students in front of others.	Barham	1965
		Rauen	1974
18.	Establishes rapport with students.	Barham	1965
		Butler and Geitgey	1970
		Nash	1977

TABLE 1 (Continued)

	CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
19.	Conveys interest in students.	Jacobson Lowery et al. Rauen Turner Wong	1966 1971 1974 1978 1978
20.	Makes students feel free to question or ask for help.	Jacobson Norman	1966 1978
21.	Informs persons concerned about plans or happenings affecting them.	DeMarsh	1968
22.	Shows a genuine interest in patients and their care.	Butler and Geitgey Rauen	1970 1974
23.	Is tolerant of other peoples' views.	Lowery et al.	1971
24.	Demonstrates honesty.	Rauen	1974
25.	Communicates with hospital personnel.	Nash Smeltzer	1977 1978
26.	Works effectively with students.	Smeltzer	1978
27.	Avoids acting in a superior manner.	Wong	1978
28.	Demonstrates confidence in students.	Wong	1978
29.	Is willing to answer questions and offer explanations.	Wong	1978

TABLE 1 (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
30. Allows students to recognize and correct own errors.	O'Shea	1979
Knowledge		
1. Is well informed on technical and professional advances.	Heidgerken Jacobson Nash Norman	1952 1966 1977 1978
2. Has a thorough knowledge of subject matter.	Heidgerken Lowery et al.	1952 1971
3. Demonstrates knowledge of scientific principles relative to patient care.	Rauen	1974
4. Interprets abstract ideas and theories clearly.	Norman	1978
5. Has knowledge of content and skill in specialty area.	Turner	1978
Skill		
1. Demonstrates skills, attitudes and values that are to be developed by the students.	Heidgerken Kiker Rauen Norman	1952 1973 1974 1978

TABLE I (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
2. Sets an example (is a role model).	Barham Smeltzer O'Shea	1965 1978 1979
3. Demonstrates technical skills in nursing activities where required.	DeMarsh Butler and Geitgey Rauen Mufaka	1968 1970 1974 1978
4. Influences student through guidance, direction and/or example to maintain or improve quality of nursing care.	DeMarsh Turner	1968 1978
5. Takes immediate and appropriate action in the case of an emergency.	Butler and Geitgey	1970
6. Is able to direct students.	Lowery et al.	1971
7. Is able to communicate knowledge to students.	Jacobson	1966
8. Guides students in utilizing nursing process.	Mufaka	1978
9. Demonstrates competency and organization.	Smeltzer	1978
Supervision		
1. Supervises new procedures.	DeMarsh	1968
2. Supervises student activity and nursing care.	Norman Smeltzer	1978 1978

TABLE 1 (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
3. Supervises and helps in new learning experiences without taking over.	Norman	1978
4. Allows further independence as students master clinical skills.	Smeltzer	1978
5. Does not supervise too closely.	Wong O'Shea	1978 1979
Availability		
1. Is available when appropriate.	Barham Rauen Nash Norman Wong O'Shea	1965 1974 1977 1978 1978 1979
2. Is available in stressful situations.	Barham Jacobson	1965 1966
3. Is available as a resource person.	Jacobson Norman	1966 1978
4. Is available as a counsellor-advisor.	Jacobson	1966
5. Is available to clients and staff.	O'Shea	1979

TABLE 1 (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
6. Assists students in more advanced nursing situations.	DeMarsh	1968
7. Includes or assists students in emergency situations.	DeMarsh	1968
8. Provides group conference time.	O'Shea	1979
9. Provides individual conference time.	O'Shea	1979
10. Is willing to help.	O'Shea	1979
Self Confidence		
1. Sure of self; meets difficulties with poise.	Heidgerken	1952
2. Admits limitations honestly.	Barham Butler and Geitgey Norman O'Shea	1965 1970 1978 1979
3. Shows restraint so that own anxiety does not influence situation.	Barham	1965
4. Is not defensive.	Barham	1965
5. Demonstrates flexibility.	Barham Butler and Geitgey Kiker Norman	1965 1970 1973 1978

TABLE 1 (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
6. Displays confidence in his/her ability as a professional person.	Kiker	1973
7. Encourages evaluation by students.	Turner	1978
Ability to Motivate Students		
1. Encourages independent thinking and learning.	Heidgerken Kiker Norman Smeltzer	1952 1973 1978 1978
2. Presents subject matter in interesting fashion.	Heidgerken Lowery et al.	1952 1971
3. Welcomes differences of opinion and treats them with respect.	Heidgerken	1952
4. Uses illustrative materials frequently, such as drawings, anecdotes, etc. to develop concepts.	Heidgerken	1952
5. Uses notes as guides; does not depend on them.	Heidgerken	1952
6. Asks thought provoking questions.	Heidgerken	1952
7. Stimulates students to function at optimum level toward independent functioning.	Barham Nash	1965 1977

TABLE 1 (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
8. Uses unexpected incidents to meet learning needs of students.	DeMarsh Norman	1967 1978
9. Encourages expression and participation in the learning experiences.	DeMarsh Rauen Turner	1967 1974 1978
10. Reflects enthusiastic attitude toward clinical area.	Rauen Smeltzer	1974 1978
11. Is creative and stimulative.	Kiker	1973
12. Encourages critical and independent thinking and action.	Rauen Turner	1974 1978
13. Challenges students to learn.	Nash Mufaka O'Shea	1977 1978 1979
14. Develops ideas in thought provoking and stimulating way.	Norman Smeltzer Turner	1978 1978 1978
Goal Setting		
1. Clarifies learning goals.	Heidgerken Turner	1952 1978

TABLE I (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
2. Objectives co-operatively developed with student.	Heidgerken Mufaka	1952 1978
3. Assignments clear; seem important and related to course.	Heidgerken	1952
4. Sets realistic goals for the patient.	Jacobson Butler and Geitgey	1966 1970
5. Sets realistic goals for the student.	Norman	1978
6. Maintains consistent and attainable expectations for the student.	Mufaka	1978
7. Explains expectations and evaluation criteria.	Smeltzer O'Shea	1978 1979
8. Helps identify learning needs.	O'Shea	1979
Professionalism		
1. Demonstrates high standards of nursing service in her attitude and her teaching.	Heidgerken	1952
2. Shows interest in making a contribution toward the improvement of nursing.	Heidgerken Butler and Geitgey Rauen	1952 1970 1974

TABLE 1 (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
3. Respects the confidentiality of student relationships.	Heidgerken Norman	1952 1978
4. Gives evidence of outside interests; well informed in civic and community affairs.	Heidgerken	1952
5. Exemplifies a truly professional nurse.	Heidgerken	1952
6. Continues to learn and improve in her field.	Jacobson	1966
7. Maintains professional poise and voice control.	DeMarsh	1968
8. Makes students aware of their professional responsibilities.	Butler and Geitgey Turner	1970 1978
9. Assumes responsibility for teaching in clinical unit.	Nash	1977
10. Participates in orientation to clinical setting.	Nash	1977
11. Shares theoretical knowledge with staff.	Nash	1977
12. Meets commitment to students and colleagues.	Turner	1978
13. Continues personal and professional development.	Turner	1978
14. Maintains and increases nursing practice.	Turner	1978
15. Evaluates and attempts to improve effectiveness.	Turner	1978

TABLE 1 (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
Resource Utilization		
1. Utilizes other resources to augment in planning care.	Butler and Geitgey	1970
2. Refers students to additional resource people and materials.	Butler and Geitgey Rauen	1970 1974
3. Seeks documentation of students' clinical performance from staff.	Nash	1977
4. Emphasizes use of appropriate community resources.	Mufaka	1978
5. Encourages student interaction with all health-team members.	Mufaka	1978
6. Helps seek alternatives.	O'Shea	1979
Planning		
1. Organizes experiences in a manner meaningful to the student.	Heidgerken Kiker Norman	1952 1973 1978
2. Plans appropriate student assignments.	Heidgerken DeMarsh Smeltzer	1952 1968 1978

TABLE I (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
3. Correlates clinical experience with classroom.	Heidgerken Rauen Mufaka	1952 1974 1978
4. Plans class meetings very carefully.	Heidgerken	1952
5. Prompt beginning and ending of class; time usefully utilized.	Heidgerken	1952
6. Instruction can be followed readily.	Heidgerken	1952
7. Conducts clinical conference to enhance transfer of learning.	Nash	1977
8. Stresses planned and incidental teaching.	Nash	1977
9. Stresses important material.	Norman	1978
Atmosphere		
1. Shows enthusiasm for teaching.	Heidgerken Lowery et al.	1952 1971
2. Encourages group participation in conference to enhance learning.	Heidgerken Mufaka	1952 1978
3. Permits freedom of discussion and venting of feelings.	Jacobson Norman	1966 1978

TABLE 1 (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
4. Shares own ideas with students.	Norman	1978
5. Promotes an atmosphere conducive to learning.	Norman	1978
6. In pre and post conferences gives attention to psychological environment and maintains control of group interaction.	Smeltzer	1978
7. Recognizes variables affecting learning situations.	Turner	1978
Evaluation		
1. Provides frequent evaluation through tests, projects and other activities.	Heidgerken	1952
2. Is objective and fair in evaluation of students.	Heidgerken Lowery et al. Kiker Rauen Norman	1952 1971 1973 1974 1978
3. Identifies strengths and weaknesses of students.	DeMarsh Mufaka Norman	1968 1978 1978
4. Rewards students' efforts to give quality care.	Rauen	1974
5. Directs his/her evaluation of written nursing care plan towards patient's needs and problems.	Smeltzer	1979

TABLE 1 (Continued)

CHARACTERISTICS OF NURSING CLINICAL INSTRUCTORS	SOURCE	YEAR
6. Provides consistent and individual constructive feedback.	Mufaka	1978
	Smeltzer	1978
	Turner	1978
	O'Shea	1979
7. Uses appropriate methods of evaluation.	Turner	1978
8. Encourages students and gives praise.	Wong	1978
9. Informs students of their progress.	Wong	1978
10. Provides honest feedback.	O'Shea	1979

Guidance of Learning Activities in the Clinical Setting in Baccalaureate Nursing Education," was deliberately omitted from the foregoing review. Mannion actually presented clinical teaching behaviors in behavioral and largely observable terms. She carried out a limited pilot study by observing instructors in the clinical setting to see that these behaviors which she had accumulated from the literature and her own critical incident study actually were observable. The work was not cited by other researchers on nursing education.

The instructional behaviors she identified appear in Table 2, shown exactly as presented by Mannion to allow comparison between the characteristics she presented and those in Table 1.

MEDICAL RESEARCH ON CLINICAL TEACHING

In 1964 Reichsman, Browning and Hinshaw published the results of their observations of undergraduate clinical teaching in medicine. They had been requested by the Advisory Board of the University of Rochester School of Medicine to "systematically and critically observe clinical teaching in action." A clinical approach was chosen because the researchers felt it took less time than a statistical approach and it placed fewer restrictions on the variety of data that could be collected.

Departmental chairmen, faculty members, students at the University of Rochester and other medical schools with "a record of excellence" were interviewed to enable the researchers "to view teaching at Rochester against a background of outstanding teaching elsewhere" (Reischman et al., 1964: 149).

TABLE 2

TAXONOMY OF INSTRUCTIONAL BEHAVIORS (M. Mannion, 1968)

Perception, Cognition, Information-Gathering Behaviors

1. Observe student performance in relation to specific learning opportunity in the clinical setting.
2. Listen to student-initiated requests, comments and explanations directed toward herself as clinical instructor.
3. Peruse student nursing care plans, agendas and other records written by student.
4. Contact and interview with the patient, his relatives and/or friends.
5. Communicate with agency staff, physicians and other professional workers.
6. Review patient related agency-documents.
7. Locate resource persons and materials.

Appraisal, Assessment, Interpretation Behaviors

1. Show a genuine interest in student.
2. Provide opportunity for student to review previously acquired knowledge, to verbalize and clarify ideas, opinions, and feelings about herself, the patient, personnel or a problem situation.
3. Elicit student's conscious reaction as to the significance of her expressed behavior and feelings about the situation.
4. Acknowledge student feelings and behavior.

TABLE 2 (Continued)

TAXONOMY OF INSTRUCTIONAL BEHAVIORS (M. Mannion, 1968)

5. Aware of own feelings and behavior regarding the instructional interaction.

6. Summarize principal points of discussion and review plan for student action.

Instrumental, Cognitive Behaviors

1. Communicate data and directives to student.

2. Demonstrate nursing care activity for student.

3. Clarify and explain situations encountered by student.

4. Encourage and permit student initiative and involvement in locating information and in decision-making.

5. Assist student to relate knowledge from other fields to the practice of nursing.

6. Refer student to additional resource persons and materials.

7. Confirm the appropriateness of student behavior.

8. Make suggestions for necessary adaptation and improvement of student behavior.

9. Withdraw temporarily from the instructional situation.

Over a period of two years, 82 teaching sessions were observed by one, two or all three of the researchers together. Of the 82 sessions, 26 were lectures or seminars, 37 were floor rounds involving patients and 19 were out-patient or emergency department sessions involving patients. The discussion followed eight headings which could be considered criteria for effective clinical teaching:

1. Instructor and student see patient together.

2. Instructor observes student's techniques of interviewing and physical exam.

3. Instructor evaluates primary data obtained by student as to accuracy and appropriate completeness.

4. Part of teaching sessions is correlation between clinical medicine and basic science.

5. Information taught in clear manner.

6. Data from case presentations forms basis for discussion of diagnoses or differential diagnosis.

7. Amount of information taught seemed appropriate to the type and objective of the teaching sessions.

8. Instructor attempts to stimulate students to acquire new knowledge.

In the same year, Adams, Ham, Maivardi, Scali and Wiseman (1964) published a report on their observation study of clinical clerks presenting initial studies of a new patient to their preceptor. A non-participant observer (preceptors themselves) kept a long-hand record of verbal and non-verbal behaviors of teacher and student as they discussed the case, went to see the patient, and made plans for

the next visit.

The summary data were analyzed by the group of observers and items of performance were noted and recorded. They were then grouped into nine major categories. From these categories a profile of teaching performance was constructed using a five-point scale and a written summary. Of main interest here were the major classifications of teachers' activities which are characteristics of medical instructors.

Eleven years later, Stritter et al. (1975) developed an instrument to survey medical students from the University of North Carolina and the University of Alabama to compile specific behaviors found to be most helpful by the students in facilitating clinical learning with 77 items, drawn from literature reviews and consultations with other medical educators. Only the 16 considered most helpful by the researchers were included in this summarization of characteristics of medical instructors.

David Irby (1978) carried out a project with medical students similar to that of Heidgerken's (1952) project with nursing students. Four hundred and eighty randomly selected students and 160 faculty members received a list of 61 clinical teaching behaviors. Students were asked to identify their best and worst clinical teacher and to rate them on the 61 teachers behaviors on a seven-point scale from "not at all descriptive" to "very descriptive." Faculty members were asked to respond to the same items by reflecting upon teaching they had observed recently. Respondents described best the clinical teachers as being "enthusiastic, clear and well organized in presenting material and skillful in interactions with students" (Irby, 1978: 813).

Foley, Smilansky and Yonke (1979) videotaped clinical teaching sessions in a medical school clerkship, including 17 randomly selected teaching rounds and working rounds. Only verbal behaviors were analyzed in the study. Observers of the videotapes were asked to designate high or low level information giving or questioning at five second intervals. Low level included reporting, reading, summarizing, giving or asking directions and giving information or asking about procedures or facts; high level included comparing, contrasting, evaluating, synthesizing, predicting and hypothesizing in statement or question format.

They found that medical students functioned as a passive audience; 83 percent of the instructors' talk consisted of giving instructions or providing content. The "overwhelming" majority of questions asked of students required low level responses.

One further observational study of medical clinical teaching was carried out in 1978-1979 at the University of Minnesota Medical School (Patridge, Harris and Petzel, 1979). Seventeen medical tutors were observed by educational consultants during a clinical teaching session. The tutors chose which session they wanted observed and no comment was made about patient participation so the assumption was made that seminars, discussion groups or rounds were observed. No definition of the clinical teaching session was given. The tutors responded favorably to the feedback.

Several sample items from the Clinical Teaching Observation Form which Patridge et al. developed from a literature review and student evaluation comments were available. The items were not observable in behavioral terms, but the observers wrote long descriptions of the

behaviors they observed in each category.

Table 3 presents the characteristics of medical clinical instructors which could be drawn from this literature. They were grouped under the same arbitrary categories as the characteristics of nursing clinical instructors so that comparisons could be drawn.

DENTAL RESEARCH ON CLINICAL TEACHING

In the field of dentistry, research followed similar lines. Walker (1971) published "Favorable and Unfavorable Behaviors of the Dental Faculty" as Evaluated by Dental Students. He also asked for descriptions of best and worst teachers, but did not differentiate between class and clinical instruction.

Mayberry (1973) was specific. She developed a closed response student questionnaire for the evaluation of clinical instruction. Items denoting behaviors of clinical instructors were generated from literature reviews and her own general feelings. She concluded that students differentiated clinical instructors in four areas: communication skills, interpersonal relation skills, availability and instructor-student relations. She indicated that the only difference between classroom and clinical instruction was availability of the instructor for individual consultation or supervision, which was more easily obtained and more important in the clinical setting.

In 1977, Evans and Massler met with a group of dental clinical instructors who designed evaluation criteria for student and observer use. The students' categories were broad, e.g., "master of his subject" and "superior in the skills required of the student," but the observer

TABLE 3

MEDICAL RESEARCH ON CLINICAL INSTRUCTION

CHARACTERISTICS OF MEDICAL CLINICAL INSTRUCTORS	SOURCE	YEAR
Interpersonal Relations		
1. Demonstrates interpersonal skills.	Adams et al.	1964
2. Honest, considerate and not biased.	Adams et al.	1964
3. Is outgoing, friendly and enjoys teaching.	Adams et al.	1964
4. Is interested in students, residents, and patients.	Stritter Irby	1975 1978
Knowledge		
1. Keeps real problems in view, complete data collection.	Adams et al.	1964
2. Answers students' questions carefully and precisely.	Stritter	1975
3. Has breadth of clinical knowledge.	Irby	1978
Skill		
1. Is an effective problem-solver.	Reichman	1974
2. Has clarity of teaching.	Reichman	1974
3. Integrates data for students.	Adams	1964

TABLE 3 (Continued)

CHARACTERISTICS OF MEDICAL CLINICAL INSTRUCTORS	SOURCE	YEAR
4. Has clinical competence.	Irby	1978
Supervision		
1. Instructor and student see patients together.	Reichman	1964
2. Observes interviewing and physical exam.	Reichman	1964
Availability		
1. Is accessible.	Irby	1978
Ability to Motivate Students		
1. Presentation verbal and written, lively and relevant.	Adams et al.	1964
2. Encourages active student participation.	Stritter	1975
3. Is enthusiastic.	Stritter Irby	1975 1978
4. Provides challenge to students.	Reichman	1964
5. Has positive attitude toward teaching.	Stritter	1975
6. Individualization,to particular patient and family.	Adams et al.	1964

TABLE 3 (Continued)

CHARACTERISTICS OF MEDICAL CLINICAL INSTRUCTORS	SOURCE	YEAR
7. Asks "high level" questions.	Foley et al.	1979
8. Gives "high level" information.	Foley et al.	1979
Planning		
1. Emphasized applied problem-solving.	Stritter	1975
2. Uses student centered instructional strategies.	Stritter	1975
3. Has organization of presentation.	Irby	1978
Evaluation		
1. Recognizes and deals with students' strengths and needs.	Adams	1964

items were the most specific of all studies cited so far, e.g., "arrives on time and leaves on time" and "corrects every step and shows the student how to do it."

In the same year Myers (1977) generated a long list of specific behaviors of clinical instructors in a two-part study. She asked 150 faculty members and 375 junior and senior students what clinical instructor behaviors contributed to learning in the clinic and what behaviors inhibited learning (like O'Shea and Pearson). She developed a 78 item instrument of instructor characteristics from responses in part one, and asked 340 students to rank the importance of each. Myers (1977: 68) was concerned that past research on behaviors of clinical instructors was not reliable because "the original sources of the items did not include [dental] faculty members or students" and "the lack of specificity of the items."

Her 78 items were the most specific to date. Twenty-one of the items, those identified as significant by all the respondents, are included in Table 4, Dental Research on Clinical Instruction. Again the characteristics which were generated by the literature review are grouped according to the arbitrary categories developed for Table 1, Nursing Research on Clinical Instruction.

SUMMARY AND CONCLUSIONS

This section includes a brief summary of the literature review and a comparison of the research in the fields of nursing, medicine and dentistry. The relevance of this review to the research problem is explained.

TABLE 4

DENTAL RESEARCH ON CLINICAL INSTRUCTION

CHARACTERISTICS OF DENTAL CLINICAL INSTRUCTORS	SOURCE	YEAR
Interpersonal Relations		
1. Is hardworking, tolerant, humble, polite and calm.	Walker	1971
2. Is interested in and understands students.	Walker	1971
3. Is unprejudiced and non-abusive.	Evans and Massler	1977
4. Interacts with students on a very intimate basis.	Evans and Massler	1977
5. Questions and/or expresses disagreement with the student's judgment about treatment in a place where the patient can't see or hear them.	Evans and Massler Myers	1977 1977
6. Is patient and calm.	Myers	1977
7. Treats students with respect.	Myers	1977
8. Listens to students.	Myers	1977
9. Speaks and otherwise acts toward the student in the presence of a patient as he would toward a colleague.	Myers	1977
10. Stimulates patient confidence in the student by doing things such as giving praise, when deserved, so that the patient hears it.	Myers	1977

TABLE 4 (Continued)

CHARACTERISTICS OF DENTAL CLINICAL INSTRUCTORS	SOURCE	YEAR
Knowledge		
1. Has knowledge about subject.	Walker	1971
2. Sits with student (and patient) to demonstrate and discuss the problem and what to do.	Evans and Massler	1977
3. Judgement is good to excellent.	Evans and Massler	1977
4. Knows what is taught in the preclinical program about current clinical procedures in his special area.	Myers	1977
Skills		
1. Teaches the skills in a logical sequence which are needed for accomplishing a task.	Myers	1977
2. Is at least as competent with regard to dental knowledge and skill as he expects his students to be.	Myers	1977
Availability		
1. Is accessible and approachable.	Walker	1971
2. Reliable. Stays in bay area and is available to student on demand.	Evans and Massler	1977

TABLE 4 (Continued)

CHARACTERISTICS OF DENTAL CLINICAL INSTRUCTORS	SOURCE	YEAR
3. Arrives on time and leaves on time.	Evans and Massler	1977
4. Is available in the clinic during scheduled hours.	Myers	1977
5. Provides assistance with procedures or patient problems if the student requests it.	Myers	1977
Goal Setting		
1. Sets standards for evaluating students' work and follows them consistently.	Myers	1977
Professionalism		
1. Volunteers information to department chairman.	Evans and Massler	1977
2. Is a model of professional dress and deportment.	Evans and Massler	1977
3. Is a perfectionist. Has high standards and expects students to "do" things right. However his demands are seen as reasonable because he himself strives for perfection.	Evans and Massler	1977
4. Demonstrates an attitude of professionalism towards students, patients and others by being compassionate, serious about his work and so on.	Myers	1977

TABLE 4 (Continued)

CHARACTERISTICS OF DENTAL CLINICAL INSTRUCTORS	SOURCE	YEAR
Planning		
1. Is organized and well paced.	Walker	1971
2. Is prepared to teach.	Myers	1977
3. Organizes his time so he does not keep students waiting.	Myers	1977
Evaluation		
1. Is fair in examinations.	Walker	1971
2. Gives constructive criticism.	Walker	1971
3. Encourages and praises student in front of patient.	Evans and Massler	1977
4. Relates to student and gives immediate feedback. Corrects every step and shows student how to do it.	Evans and Massler	1977
5. Gives reasons why a student's work is acceptable or not.	Myers	1977
6. Gives grades which reflect the quality of student's work.	Myers	1977
7. Discusses the student's performance at the end of the appointment period and evaluates it.	Myers	1977

TABLE 4 (Continued)

CHARACTERISTICS OF DENTAL CLINICAL INSTRUCTORS	SOURCE	YEAR
8. Shows interest in or exhibits a positive attitude about students' work and problems by doing things such as expressing encouragement to students, giving positive reinforcement, and going around to each student to ask how he's doing.	Myers	1977
9. Analyzes the student's work and tells him what he is doing correctly and what he is doing incorrectly.	Myers	1977
10. Tells students how to improve their performance.	Myers	1977
Ability to Motivate Students		
1. Is interested in subject.	Walker	1971
2. Is enthusiastic.	Walker	1971
3. Speaks authoritatively and professionally.	Evans and Massler	1977
4. Is energetic, has lots of energy, even at the end of day.	Evans and Massler	1977
5. Communicates clearly.	Myers	1977
6. Motivates students to improve their knowledge and skills.	Myers	1977

TABLE 4 (Continued)

	CHARACTERISTICS OF DENTAL CLINICAL INSTRUCTORS	SOURCE	YEAR
7.	Allows students to act as independently as possible while ensuring both student and patient well-being.	Myers	1977
8.	Gives reasons for telling the student to do something in a different way than was taught in lecture.	Myers	1977
9.	Gives reasons for doing a procedure one way and not another.	Myers	1977

The four tables presented in this chapter show the characteristics of clinical instructors in nursing, medicine and dentistry which were extracted from the literature. The literature on nursing pertaining to clinical instruction behaviors was more voluminous than that of medicine or dentistry. This could have been because several of the nursing studies failed to differentiate between clinical and classroom instruction and therefore all of those which did not differentiate were included, assuming that they meant both. Studies which specified classroom teaching only were not included.

The majority of the nursing research generated behaviors of clinical instruction through the critical incident report technique or the subjective impressions of both nursing students and nursing instructors. The researchers did not take these behaviors into the field (the clinical setting) and test them for their accuracy of description of clinical instruction or for their observability. Sister Mannion (1969) did a short observation study to test the reliability of the characteristics she had developed but did not include a clinical setting involving a patient, only clinical situations where students, instructor and possibly other hospital staff were present.

Table 1 presented 128 characteristics in 13 categories. These characteristics were reported to describe the behavior of nursing clinical instructors. The setting includes all clinical instruction areas, e.g., seminars, group teaching sessions, individual consultation and supervision. By the definition used in this thesis, the clinical setting includes a patient. Only the category labelled "supervision" suggested that a patient might be involved but these characteristics

could be demonstrated in a laboratory setting as well as a hospital ward or clinic which included a patient.

The medical researchers were more involved in observation studies. Only one researcher (Irby, 1978), used the critical incident technique. Reischsman et al. (1964) and Adams et al. (1964) made generalizations about medical clinical instruction behaviors following their observations. Foley et al. (1979) analyzed videotapes for high and low level information giving or questioning which was much more specific. They did not indicate that patients were ever present in the teaching sessions which were videotaped.

These studies produced only 24 characteristics of medical clinical instructors which were categorized in 8 of the 13 categories designed for the nursing characteristics. The five categories not included were: self-confidence, goal-setting, professionalism, resource utilization and atmosphere. The nursing literature spanned a greater time frame and involved more studies. The medical characteristics involve only five studies.

The dental research into this field involved an even shorter time frame. Four research articles, published between 1971 and 1977, produced 48 characteristics of dental clinical instruction which were grouped into nine of the categories designed for Table 1. The categories not included in the dental research were: supervision, self-confidence, resource utilization and atmosphere.

The research problem of this study was to register, record and analyze actual observed behaviors of nursing instructors while interacting with a student and a patient in the clinical setting. A

review of the literature on characteristics of clinical instructors in nursing, medicine and dentistry has produced 128, 24 and 48 characteristics, respectively. Are these characteristics related to observable behaviors in the clinical setting? Are these characteristics what an observer actually sees or are they generalizations drawn from personal opinion?

This study should identify specific, observable behaviors, combinations of which might produce the types of characteristics presented in the literature review.

CHAPTER III

DESIGN OF THE STUDY

This chapter contains a discussion of the design of the study. Sampling, instrumentation and data analysis procedures are explained.

SAMPLING

The study took the form of non-participant observation in the clinical field. This required situations in which there were clinical nursing instructors, supervising student nurses on hospital wards, in clinics or home settings, as long as an instructor, a student nurse and a patient were all present at the same time.

The Dean of the Nursing Faculty at the University of Alberta was approached first. She was supportive of the proposed study and indicated that the May clinical rotation for first year students might be an appropriate setting. The first year baccalaureate students would be practicing physical examinations of well clients, in a laboratory setting, with constant supervision by faculty members.

This setting was eventually not a feasible choice for two reasons. First, the well clients were replaced by fellow students and, second, the faculty members objected to the idea of an observer's presence.

The Director of Grant MacEwan Community College's Nursing program was approached. She also was supportive of the proposal but had no clinical settings which would be appropriate due to timing factors. First year students were in a laboratory setting which did not involve

patients and second year students were going on holidays.

The Director of Nursing at the University of Alberta Hospital School of Nursing was contacted. The University of Alberta Hospital School of Nursing is one of three hospital diploma programs in the city. It was approached before the other two because of its location, on campus. The Director again was supportive of the proposal, and presented it to the faculty of the School of Nursing and to the Faculty's research committee. With the faculty's support, the director presented the proposal to the hospital's Special Services Committee and Research and Scholarly Activities Committee. Consent to initiate the research was obtained from all concerned. This process took two months. Because of the time involved in obtaining consent it was decided to carry out this study at only one school of nursing.

The setting then became hospital wards in a large, urban teaching hospital. The participants were nursing instructors and student nurses in a diploma school of nursing and patients, assigned to student nurses for nursing care purposes, on wards in the hospital.

The hospital's Research and Scholarly Activities Committee requested that written consents be obtained from all participants and that high quality electrical recording equipment be used.

The diploma program, two and one half years in length, was divided into four sections which for the purposes of this study were called A, B, C and D. In section A, clinical experience was in a laboratory setting. In section B, clinical experience was on medical and surgical wards with one instructor supervising six or seven students.

The students were closely supervised as this was their first experience with dressings, intravenouses, injections, etc. The student was assigned one or two patients to care for and the instructor was always available to them.

In section C, the students were supervised less closely. Medical, surgical, orthopedic, obstetric and pediatric wards were utilized for the student experience. An instructor was available to the student, but the instructor's four to eight students might have been on more than one ward or on the evening shift. Dressings and treatments were usually supervised until the instructor felt that the student was functioning proficiently. The student assignment was decided by the instructor. Three or four patients were assigned to each student. Student-patient-instructor interaction was less frequent than in section B.

In section D, students had clinical experience in all areas of the hospital. They worked different shifts and experienced some clinical practice without an assigned instructor in the hospital. The ward staff became more responsible for the student's actions and decided upon the patient assignment.

Because of the lack of patient-student-instructor interaction in sections A and D, the numbers of patients assigned in section D, and the shift work, only instructors in sections B and C were selected for the study.

The proposed study and expected time frame were explained to the faculty by the director. Seven volunteers met the criteria of being in section B or C and having clinical teaching experiences in the

designated time frame.

Four instructors were selected for the research study. Time constraints were a problem. It took three months to complete the pilot study and the observation of four instructors, and by then the other volunteers were involved in non-clinical aspects of the program.

The sample consisted of four instructors, who interacted with 20 of the student nurses and 43 patients.

INSTRUMENTATION

The instrumentation was developed through a pilot study, an evaluation of the pilot study, and the research study itself.

Pilot Study

The pilot study was carried out to determine the feasibility of:

1. securing all student and patient consents in the time available,
2. tape recording interactions in a large noisy ward with many mechanical and electrical interferences, and
3. recording non-verbal behaviors quickly, as they occurred.

The subject for the pilot study was chosen from the volunteers by the Director of the Nursing Program, as a self-confident, experienced instructor in section B of the program.

Once the volunteer instructor had discussed the study with the observer, she signed a legal release form and indicated a convenient time to be observed. Class days, meeting days and student evaluation days were deemed inappropriate for this study because the instructor-

student-patient interaction did not occur in those settings. All of the students assigned to the volunteer clinical instructor on the designated day were approached by the observer. The study was explained to them and they were given the option of participating or not. They also signed consent forms to participate.

The patient assignment for the students involved with the volunteer instructor on the designated day was posted by the instructor by noon on the day prior to the observation. The observer went to the ward involved on the afternoon or evening of the day prior to the observation and spoke to each patient individually. The study was explained briefly and each was given the option of participating or not. Signed consent forms were obtained. (See Appendix I for copies of the consent forms.)

When consent forms had been obtained from all participants, the observer began shadowing the instructor. The observer wore a white laboratory coat and a hospital issue name tag. The recording equipment was carried in a corduroy shoulder sachel and the tiny microphone, the size of a pencil eraser, was clipped to a black folder on which narrative notes were written.

The observer turned on the recorder as she entered the setting in which an instructor-student-patient interaction might occur, so that mechanical distractions were minimal. Non-verbal behaviors were recorded as they occurred.

The pilot instructor was observed for 16 hours involving student-patient-instructor interactions which were taped. Following the pilot session, the instructor, the students and several of the

patients were interviewed to see how they felt during the taping.

The instructor said that the presence of the observer did not disturb her after the initial few minutes. Indeed, she said that she forgot all about the tape recorder. She did not find the observer's presence a distraction. She did express some concern about the students' feelings. She thought their anxiety level might be raised by the observer's presence. She also asked for feedback from the observer about her teaching style.

The six student nurses involved in the pilot study were approached as a group following the pilot observation. They said that they were under stress whenever their instructor was observing them but that the presence of an additional observer did not make any difference to them. They did express concern about the feelings of the patients involved, and the patients' anxiety level.

The patients interviewed did not find the observer's presence an intrusion. They felt that they were contributing to something concrete and were generally quite pleased to be involved. One patient mentioned that the observer was one of a few people among many with whom she had contact every day, who actually identified herself and stated her purpose in being at her bedside.

The observer did not encounter a situation where the patient was too ill to participate voluntarily.

An evaluation of the pilot study indicated that it was possible to secure all student and patient consents in the time available. The quality of the tape recordings varied with the settings. In private or semi-private rooms, the quality was good. In larger ward

settings, it was difficult, but not impossible, to transcribe the tapes. The recording of non-verbal behaviors was not difficult. The definition of non-verbal behaviors (Chapter I) allowed the observer to concentrate only on teaching behaviors of an objective nature and there were not many of these.

Research Study

The research study followed the format of the pilot study. Four instructors involved in the research study were observed for an eight hour period each. In two instances, this consisted of four hours on two different days. These instructors often had meetings or student evaluations after lunch, so they were then not available to interact with students and patients. The other two were each observed during an eight hour stretch.

DATA ANALYSIS PROCEDURES

The transcription of the tapes and narrative notes taken in the clinical setting provided the raw data for the study. A system whereby the data could be analyzed and coded with a sufficiently high degree of validity to warrant making any inferences or arriving at any conclusions was devised.

Instructors' behaviors were extracted from the tape recordings and were recorded one behavior at a time with non-verbal behaviors integrated where they occurred during the sequence. An instructor's behavior began when she began talking or acting and ended when the talking or activity stopped or someone else spoke. Long interactions were broken into simple units of sentences. Each item was an interaction.

The researcher listed the items one under another, in sequence at the left hand edge of a page. In a column near mid-page, the indicated direction this interaction was taking, e.g., toward the student, patient, etc., was noted. A third column registered whether this interaction was a question, a statement or an action.

This coding was uncomplicated, merely time-consuming and tedious. The researcher described each behavior in terms of what it was, not what it meant. This activity led to many, many behaviors which were listed and grouped according to similarity in meaning. The researcher then reviewed the behaviors and categorized them according to an arbitrary short list. Each behavior was reviewed and checked a third time for consistent use of descriptors when coding was done for keypunching. (See Appendix 2 for data coding example.)

The coding framework was developed from the researcher's interpretation of the data. Three main coding categories were direction of behavior, fundamental type of behavior and description of behavior. This differentiation yielded 66 possible combinations.

Direction of Behavior

This category included three possible choices: patient, student nurse and other. General statements made for the benefit of anyone listening and statements made to other patients, visitors or hospital personnel were coded as other.

The first breakdown was:

Direction of Behavior
1. patient
2. student
3. other

Type of Behavior

The second major category was basic or fundamental type of behavior. Again, three choices were developed: question and statement describing verbal and action for non-verbal behavior.

The second breakdown then, was:

Type of Behavior
1. question
2. statement
3. action

Description of Behavior

The third major category was a description of each behavior. This description did not include the intention of the subject in carrying out the behavior; it merely described what she actually did. Each of the types of behavior had its own descriptors.

(a) Question Descriptors

There were six descriptors for the category called questions.

Question Descriptors
1. closed
2. open-ended
3. rhetoric
4. query
5. direction
6. caution

The first descriptor was a closed question. A closed question elicited a specific response. Usually it asked nothing beyond agreement or disagreement. The category also included questions asking a specific response, e.g., age, location. Forced choice questions were also included in this category.

Closed questions are used therapeutically to gather information "for people who are indecisive, depressed or highly anxious" (Hein, 1973: 33), and with young children to help give a feeling of accomplishment through participation in decision-making.

Some examples of closed questions generated by this study were:

Did you shake it already?

Did you hear that?

Does the dressing get uncomfortable after a while?

How many do you need?

Do you have a sterile safety pin?

What size do you take?

The second descriptor was open-ended question. An open-ended question allowed the respondent to verbalize in his/her own way, any amount or type of information he/she chose. For example:

What are you chuckling about?

Why did you bring a catheterization tray?

How are you doing now?

Why can't you?

The third descriptor was rhetoric. This was a question posed to emphasize a point or introduce a topic and no answer was expected. For example:

I wonder why it's so high?

You need fifty arms, don't you?

Penrose drain soup, eh?

The fourth descriptor was labelled query. "Query--a question, used to indicate a doubt as to the correctness of a statement, phrase, etc." (Oxford English Dictionary, 1979: 2390). A query denoted a question asking the respondent to acknowledge comprehension of the situation. The question usually took the form "OK?" meaning, "Do you understand?" "Do you feel competent?" or "Are you in control of the situation?"

The next category was direction presented in question format. A direction was an instruction of how to do something and could be worded directly (as a statement) or indirectly (as a question) "direct--

to regulate the course of, to guide, conduct, lead; to guide with advice, to advise" (Oxford English Dictionary, 1979: 408).

Shouldn't you shut the door?

Can I just have you roll over a little bit?

Do you want to put the light on?

Questions were also used to caution. "Caution--a word of warning; a caveat, monition; a hint or advise to anyone to take heed" (Oxford English Dictionary, 1979: 9360).

(b) Statement Descriptors

Nine categories of statements were identified. The first

Statement Descriptors
1. fact
2. explanation
3. positive acknowledgement
4. negative acknowledgement
5. direction
6. caution
7. opinion
8. encouragement
9. regulatory

category was factual. This behavior conveyed information of a specific type. "Fact--a particular truth known by actual observation or authentic testimony" (Oxford English Dictionary, 1979: 947). The data abounded with factual statements such as:

The dinner cart is here.

He's been having a great sleep all morning.

The intravenous was put in this morning.

Actually, it's dripping slowly.

You can't guarantee anything.

Factual statements were differentiated from explanations, which also gave information, but for a slightly different reason. "Explanation--to make one's meaning clear and intelligible, speak plainly. Also to give an account of one's intentions or motives" (Oxford English Dictionary, 1979: 931). For example:

I'm going to set your leg down now.

Yes, we are just putting a catheter in.

We're going to do them the way you just told us.

This way you don't have to get up.

Statements denoting acknowledgement were divided into positive and negative categories. "Acknowledge--to recogniz or admit as true" (Oxford English Dictionary, 1979: 20). Positive acknowledgement consisted mainly of comments, "OK," "yes," "sure," when the instructor acknowledged the student's comments or actions as being correct or satisfactory. In this study, it was noticed that instructors sometimes used "OK" repeatedly during a nursing procedure to give the student some positive feedback. Negative acknowledgement described comments like "no," or "uh, uh," indicating an incorrect or inappropriate behavior.

A common form of statement in this study was the giving of direction. "Direction--to regulate the course of, to guide, conduct, lead; to guide with advise, to advise" (Oxford English Dictionary, 1979:

931). Examples were:

And then you can also put the sterile drape on at the same time.

You can just slide that underneath.

You can go ahead and do it and I'll just watch you.

Add these two.

Pull them right up.

A direction in negative terms was called a caution in this study. "Caution--a word of warning; a caveat; monition; a hint or advise to anyone to take heed" (Oxford English Dictionary, 1979: 360). For example:

He shouldn't be left unattended.

Don't touch that cord.

Speculative, non-factual statements were described as opinion. Opinions included beliefs or feelings not based on proven knowledge. Examples included:

Maybe it was the week before.

It feels great.

It looks good.

You don't look very comfortable.

Whatever is easier for you.

Statements of positive acknowledgement going beyond validation and actually expressing the instructor's opinion of superiority of performance were labelled encouragement. For example:

That's great.

That's super.

Very good.

A negative counterpart could have existed here, but did not appear in this study. For example:

That's terrible.

That's bad.

The term regulatory was used to describe statements of social custom or statements used to control the discussion.

Hi.

Thanks.

Umhum.

Pardon me.

(c) Action Descriptors

Non-verbal behaviors were called actions and were described by seven categories. The first category

Action Descriptors
1. demonstrate
2. assist
3. indicate
4. encourage
5. caution
6. habit
7. nursing practice

was demonstrate. If, as suggested by Rauen (1974), the clinical nursing instructor is, by virtue of her position, a role model of a person, a nurse, and a teacher to her students, then every word she says or action she takes is a demonstration to the student nurse. In this study, demonstration applied only to actions she took, in the instructor-student nurse-patient situation which showed a student how to do something that the student might have done, or might do on her own. "Demonstrate--to describe and explain with the help of a specimen or by experiment, as a method of teaching a science" (Oxford English Dictionary, 1979: 357).

A demonstration did not make the student's task easier. It did, however, sometimes replace a student's activity. For example: If the instructor, while demonstrating a technique, replaced an intravenous bottle, then the student would not do the task at that time.

A demonstration of technique of holding forceps did not facilitate the dressing change. On the other hand, handing equipment (e.g., gauze dressings) to the student as she needed them was a task the student knew and could do herself, but the instructor's assistance helped complete the task more quickly.

The definition attempted to differentiate from assist. Clinical instructors "lend a hand" or assist frequently. In doing so, they are still role modelling but are not necessarily demonstrating. "Assist--to help, aid; (a) a person in doing something; (b) a person in necessity; (c) an action; process or result" (Oxford English Dictionary, 1979: 128).

Several times during the observations, instructors would point at equipment or people to indicate what she was talking about. This action was called indicate.

Touching of either the student or the patient by the clinical instructor had both a positive and negative component. The positive supportive touch was called encouragement and the negative, holding back was called caution. Caution actions also included non-touching actions such as holding up the hand to indicate "stop" or shaking the finger to scold although neither of these negative actions occurred in this study.

Some actions were ritualistic or habitual, such as putting hands on and off hips or tapping the foot. Not many of these were observed but the researcher felt that if they did occur repeatedly they would be identified as habit.

Nursing practices, which have to be carried out by the instructor and fell into a role model definition, but which neither assisted nor demonstrated fell into the last category. For example: washing hands before supervising a dressing change or putting on a mask.

Coding Reliability

Five individuals were invited to independently code a sample of interactions for the purpose of testing the reliability of the coding system.

Three of these individuals were instructors in the basic degree nursing program at the University of Alberta, one was a high school teacher and one a part-time office receptionist. It was felt that nursing knowledge was not a requirement for this task. The coders were chosen because of their availability and desire to participate.

The sample interaction which the coders received was chosen because of its length and variety. It was a complete interaction containing 53 items, including both verbal and non-verbal behaviors. The coders received the sample interaction with direction and type of behavior supplied, as well as a list of possible descriptors for each type of behavior and a definition of each descriptor. The instructions were to chose the best descriptor for each item of behavior in terms that described what the instructor actually did not what impression she intended to convey. The five individuals rated reliability scores of .81, .87, .87, .87 and .91. The score of .81 was received by the part time office receptionist. (See Appendix III for a sample of the interaction.)

SUMMARY

This non-participant observation study took place in a large urban teaching hospital. Four diploma nursing instructors were observed during interactions which included student nurses and patients.

The observer tape recorded the verbal interaction and manually described non-verbal instruction activities. The behavioral items generated from the tapes and narrative notes were classified according to direction of behavior, type of behavior and description of behavior.

Five individuals coded a sample interaction independently, scoring between .81 and .91.

CHAPTER IV

ANALYSIS OF THE DATA

This chapter on data analysis consists of three sections. The first is a presentation of all coded behaviors by classification of behavior. The second is the presentation of all coded behaviors by subject. The third is a discussion of behaviors in a format which might help others use the categories developed during this study, for their own purposes. The observed behaviors were coded according to direction and description, and the percentage use of each coded category was determined. These percentages were examined category by category for all subjects. The percentage use of each different category by subject was prepared in graphic form to present a profile of each subject's observed behavior. The variables of number of behaviors observed, number of students observed, number of patients observed and the level of the program in which the students were involved were examined as possible contributing factors.

ANALYSIS BY BEHAVIOR

Figure 1 indicates that the 22 descriptions of behavior could be combined with the directions of behavior, resulting in 66 possible combinations, e.g., the six question descriptors could be asked in any of three directions, patient, student and other.

Direction

Table 5 indicates the findings on directions of behavior. In all cases the majority of behaviors were directed to the student

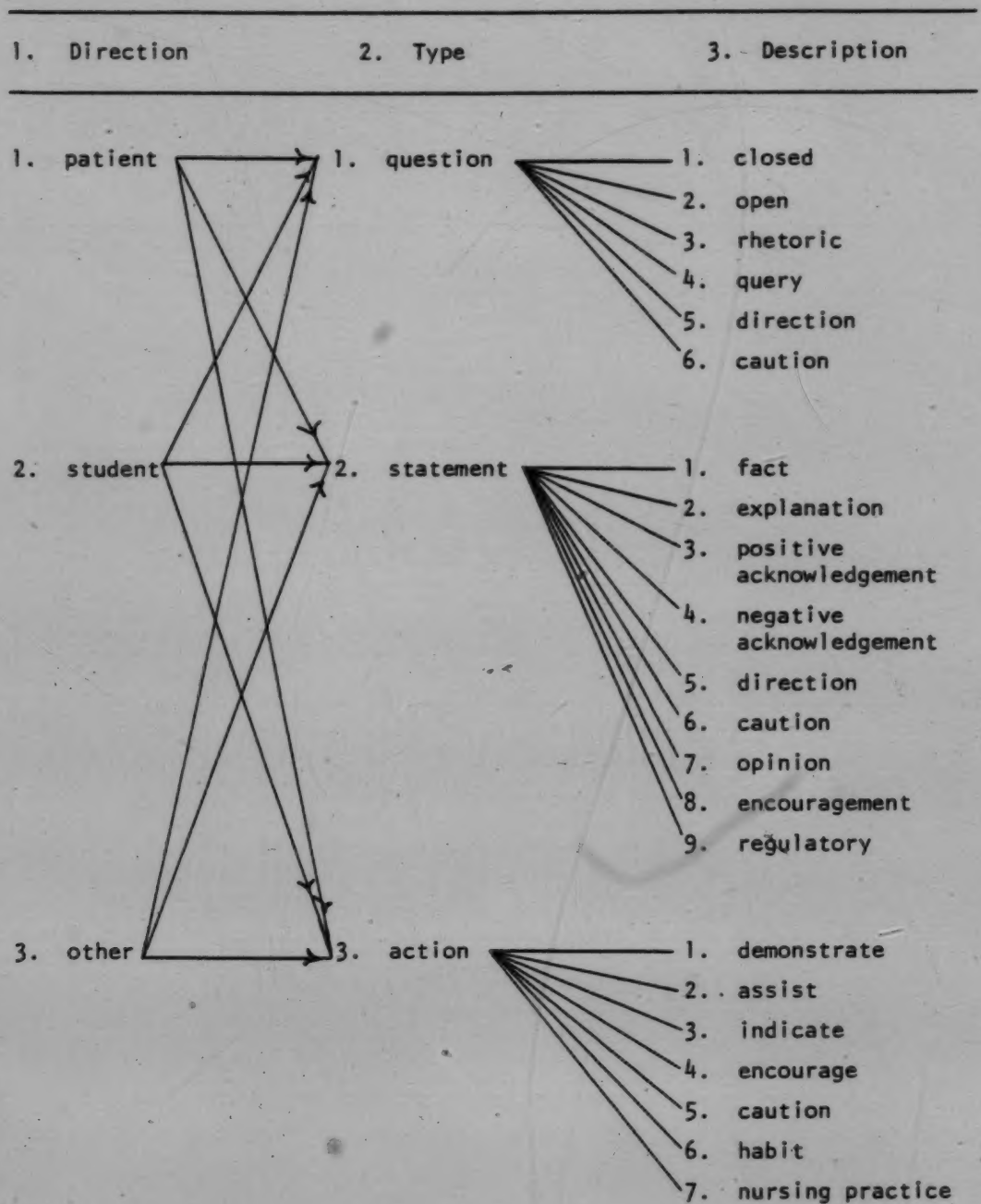

Figure 1. Possible Combinations of Behaviors

TABLE 5

Percentage Distribution of

Directions of Behaviors

Subject	Student	Patient	Other
1	70.3	26.7	5.7
2	60.9	36.4	2.7
3	63.0	34.5	2.5
4	68.6	26.9	3.8
Average	65.6	31.1	3.7

nurse. Very few were directed toward others. In most cases there was never an "other" present.

Type

Table 6 presents the distribution of behavior by type. In all cases, statements composed the largest percentage of the behaviors observed and actions the smallest. The distributions were similar for all subjects, with the exception of the higher percentage of actions for subject four and a lower percentage for statement behaviors. This phenomenon might be explained by the fact that the patients in the clinical setting of subject 4 consisted of children. Subject 4 appeared to touch the children and demonstrated nursing practice on the children more than instructors working with adult patients.

Description

The percentage distribution of descriptors was divided into the categories of question, statement and action. Looking at these three separately, the direction of each descriptor was introduced. Each category was viewed as a whole, or one hundred percent, e.g., 21 percent of Subject One's behaviors were questions. In discussing types of questions used, the 21 percent became 100 percent of the questions.

Questions. Table 7 is a presentation of the question descriptors by percentage use per subject per direction. In all cases, the majority of the questions asked were closed. Two subjects asked more questions of the patient than the student, and the other two did the opposite. Subjects Two and Four followed closed questions with

TABLE 6

Percentage Distribution of

Types of Behavior

Subject	Question	Statement	Action
1	20.6	73.7	5.7
2	21.1	70.9	8.0
3	25.1	67.8	7.0
4	23.1	54.5	22.4
Average	22.4	66.7	10.8

TABLE 7

Percentage Distribution of Question Descriptors

Subject	Closed			Open		Rhetoric			Query		Direction		Caution	
	patient	student	other	patient	student	patient	student	other	patient	student	patient	student	patient	student
1	15.5	37.1	3.1	1.0	3.1	1.0	-	-	7.2	26.8	1.0	2.1	1.0	1.0
2	40.7	22.0	1.7	6.9	10.2	1.7	-	1.7	1.7	8.3	-	1.7	-	-
3	34.5	32.5	-	5.3	3.4	2.4	2.4	.5	4.9	9.2	.5	1.5	.5	-
4	11.1	66.7	2.8	-	8.3	-	-	-	5.6	5.6	-	-	-	-
Average	25.4	39.6	-	3.3	6.3	1.3	.60	.6	5.6	11.7	.38	1.30	.4	.3

open questions in percentage standings, although there were significantly fewer open questions than closed; for Subject Two, 63 percent closed versus 17 percent open; and for Subject Four, 78 percent closed versus 8 percent open. Subject One posed more queries than open questions at 34 percent, as did Subject Three at 14 percent. Rhetoric, direction and caution questions comprised only small percentages, e.g., less than 4 percent.

Statements. Table 8 is a presentation of the results coded for behaviors labelled statements. Statements of positive acknowledgement to the student held the highest percentage of occurrence for every subject, the average being 26 percent. The second most frequently occurring statement behavior was direction giving to the student for Subjects One and Three, and factual statements to the student for Subjects Two and Four. Factual statements to the patient were also relatively frequent.

Actions. Table 9 is a presentation of the percentage distribution of action descriptors. In this category there was more variation in the use of different behaviors. Subject One exhibited primarily assisting of the student and demonstrating to the student activities (45 and 33 percent, respectively).

Subject Two exhibited a larger percentage of assisting behaviors to the student (62 percent), followed by indicating behavior to the student at 14 percent.

Subject Three, on the other hand, was observed demonstrating to the student for 30 percent of her activity, indicating to others for 18 percent, and encouraging the patient for 12 percent.

TABLE 8

Percentage Distribution of Statement Descriptors

Subject	Fact			Explain			Acknowledge				Direction		
							Positive		Negative				
	patient	student	other	patient	student	other	patient	student	patient	student	patient	student	other
1	3.7	7.8	1.7	5.5	1.7	.3	6.0	24.1	-	.9	.6	25.0	.3
2	9.4	16.0	.6	6.1	3.3	-	7.7	24.9	-	1.1	.6	9.9	-
3	11.2	16.0	.7	4.1	5.4	-	6.5	19.1	.7	1.1	.7	21.3	-
4	15.3	20.0	-	-	3.5	-	4.7	36.5	-	1.2	-	9.4	-
Average	9.9	15.0	.8	3.9	3.5	.07	6.2	26.1	.2	1.1	.5	16.4	.1

TABLE 8 (Continued)

Subject	Caution		Opinion			Encourage			Regulatory		
	patient	student	patient	student	other	patient	student	other	patient	student	other
1	-	.6	.9	-	.6	2.5	6.9	-	8.6	2.3	-
2	-	.6	3.3	2.2	1.1	1.1	4.4	.6	3.9	3.3	-
3	-	4.0	2.2	.7	-	.9	.7	-	3.8	.9	-
4	-	-	-	2.4	-	1.2	-	-	4.7	1.2	-
Average	-	1.3	1.6	1.3	.4	1.4	3.0	.1	5.2	1.9	-

TABLE 9

Percentage Distribution of Action Descriptors

	Demonstrate			Assist			Indicate		
	patient	student	other	patient	student	other	patient	student	other
1	7.4	33.3	-	-	44.4	3.7	-	3.7	-
2	-	-	-	9.5	61.9	-	-	14.3	-
3	3.5	29.8	1.8	5.3	8.8	-	-	3.5	17.5
4	2.9	20.0	-	2.9	22.9	-	-	2.9	-
Average	3.4	20.8	.4	4.4	34.5	.9	-	6.1	4.4

TABLE 9 (Continued)

Subject	Encourage			Caution		Habit	Nurse Practice
	patient	student	other	patient	student	other	other
1	3.7	-	-	-	-	-	3.7
2	9.5	-	-	-	-	-	4.8
3	12.3	1.8	-	-	1.8	3.5	7.0
4	34.3	-	-	-	-	-	14.3
Average	15.0	.4	-	-	.4	.9	7.7

The action behavior occurring most frequently during the observation of Subject Four was encouragement of the patient at 34 percent. This subject had the largest percentage of action behaviors overall, and, as indicated previously, supervised student nurses caring for children. Twenty-three percent of Subject Four's activities were to assist the student and 20 percent to demonstrate to the student.

Summary

In analysis by behavior it was of interest that all four subjects directed most of their behavior to the student; that all four used more statements than questions or actions; that most questions asked were of the closed variety; that most statements used were to give the student positive acknowledgement; and that the non-verbal behaviors followed less of a pattern than the others.

ANALYSIS BY SUBJECT

Additional information about each observation session is provided here to assist in the interpretation of individual subject analysis.

Table 10 indicates which section of the program each subject taught in (either B or C); the number of students they were supervising; the number of patients the students were caring for; the amount of time spent in instructor-student-patient interaction,and the number of behaviors observed and coded.

Subject Three, in Section B, (the students having their first ward experience), had the most students to supervise, but each student was assigned only one patient. She spent the most time in instructor-

TABLE 10

Descriptive Data on Observation Sessions

Subject	Section	Students	Patients	Time	Behaviors
1	C	5	11	105 min	472
2	C	5	21	45 min	261
3	B	7	7	180 min	818
4	C	2	4	30 min	156
Total		19	43	360 min	1707
Average		4.75	10.7	90 min	426

student-patient interaction and had the highest number of behaviors observed.

The three subjects in Section C spent varied amounts of time in the presence of both student and patient. There was no relationship between amount of time and either number of students or number of patients. Subjects One and Two both supervised five students in level C, yet one spent 105 minutes with the student and patient and the other spent only 45 minutes. Subject Four spent 30 minutes with student and patient during two four hour sessions.

The number of behaviors observed were positively related to the length of time the subjects were observed. The longer the subject was observed the more behaviors were recorded.

INSTRUCTOR PROFILES

The data on percentage of behavior in each category was compiled in graphic form, one graph representing each subject and one providing a composite profile. Each graph denotes every category coded for both student and patient directed interactions. Behaviors directed toward others were not represented because they composed such a small percentage. Patient directed behaviors were signified by "hatched" bars and student directed behaviors by solid bars.

Subject One

Figure 2 represents the distribution of behaviors of Subject One. Direction giving to the student and positive acknowledgement

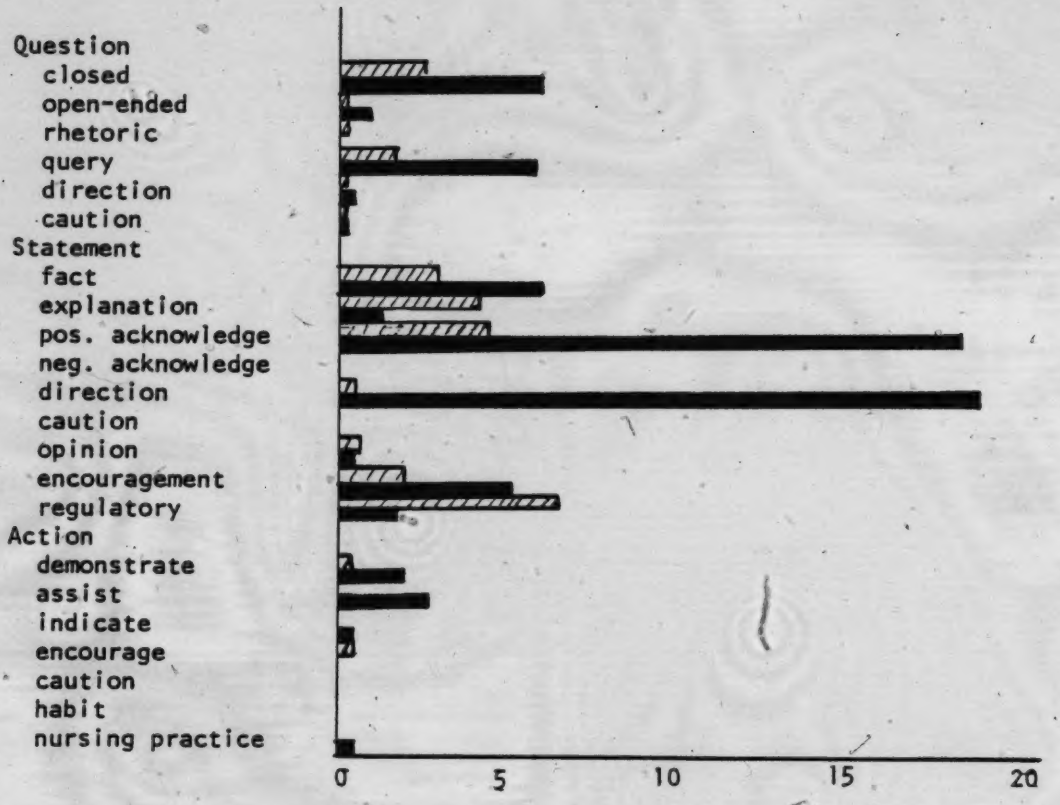

Fig. 2. Instructor Profile: Subject One

patient

student

statements to the student were dominant behaviors. Her behaviors toward the patient were less dramatic and were more regulatory statements than anything else. Noticeable by their absence were factual statements and opinions directed toward the student.

Subject Two

Figure 3 is the graphic instructor profile for Subject Two. Subject Two displayed mainly fact giving behaviors and positive acknowledgement to the student. She also asked a lot of closed questions of the patient. Subject Two did not demonstrate to either the student or the patient.

Subject Three

Figure 4 displays the profile of Subject Three. Three student directed behaviors stood out because of frequency: direction giving, positive acknowledgement and factual statements. Subject Three asked the patient closed questions and supplied the patient with factual information.

Subject Four

Subject Four's profile is presented in Figure 5. Positive acknowledgement to the student was the predominant behavior followed by closed questions of the student and factual statements to the student. Predominant behaviors directed to the patient were factual statements and encouraging actions.

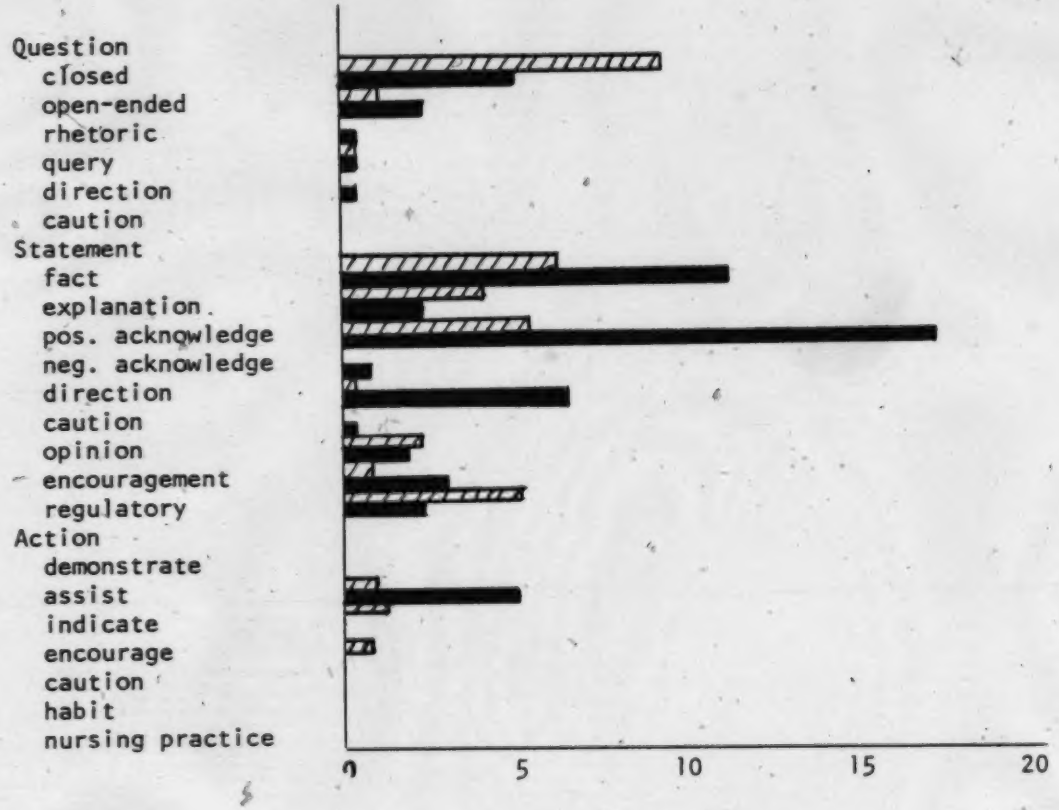

Fig. 3. Instructor Profile: Subject Two

patient

student

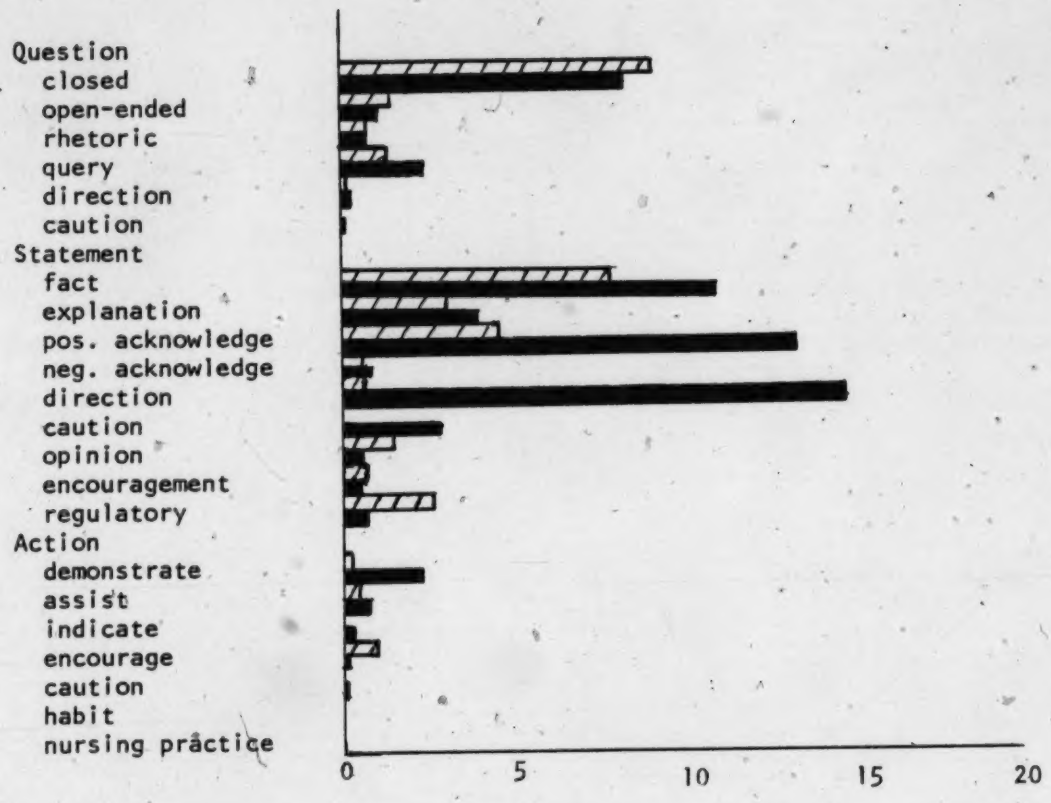

Fig. 4. Instructor Profile: Subject Three

patient

student

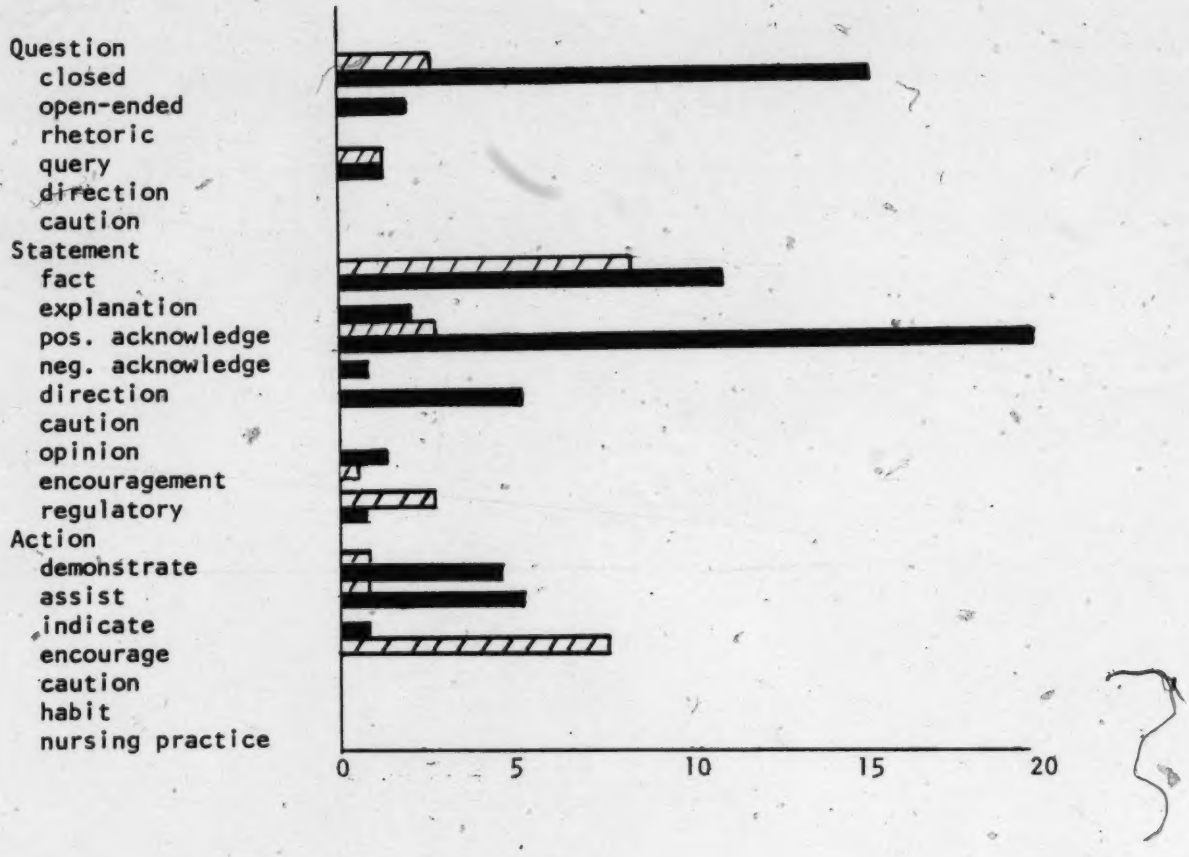

Fig. 5. Instructor Profile: Subject Four

patient

student

Composite Profile

The profile created from the average percentages of behaviors is presented in Figure 6. Statements of positive acknowledgement to the student was the predominant behavior. Giving directions and factual information to the student followed. Behaviors directed toward the patient were mainly asking of closed questions, fact giving, positive acknowledgement and regulatory.

BEHAVIOR OBSERVATION TOOL

The behaviors generated by this study were all observable. The observation of the behaviors led to the compilation of both a behavior profile and a subject profile. The same types of profiles could be developed from data obtained by observation in any clinical setting, by any trained observer.

Table 11 is an example of one way that the 22 descriptions could be presented, with the direction category for the purpose of a check list observation tool.

The use of an observation checklist permits a systematic record of instructor behavior while minimizing the problem of selective observation which occurs without an observation procedure because of an observer's preconceptions of what he thinks should happen.

In the clinical setting it would be difficult to involve more than one observer in a particular situation so an observer team is not realistic. Using only one observer decreases the reliability of the data so observer training and periodic observer evaluation

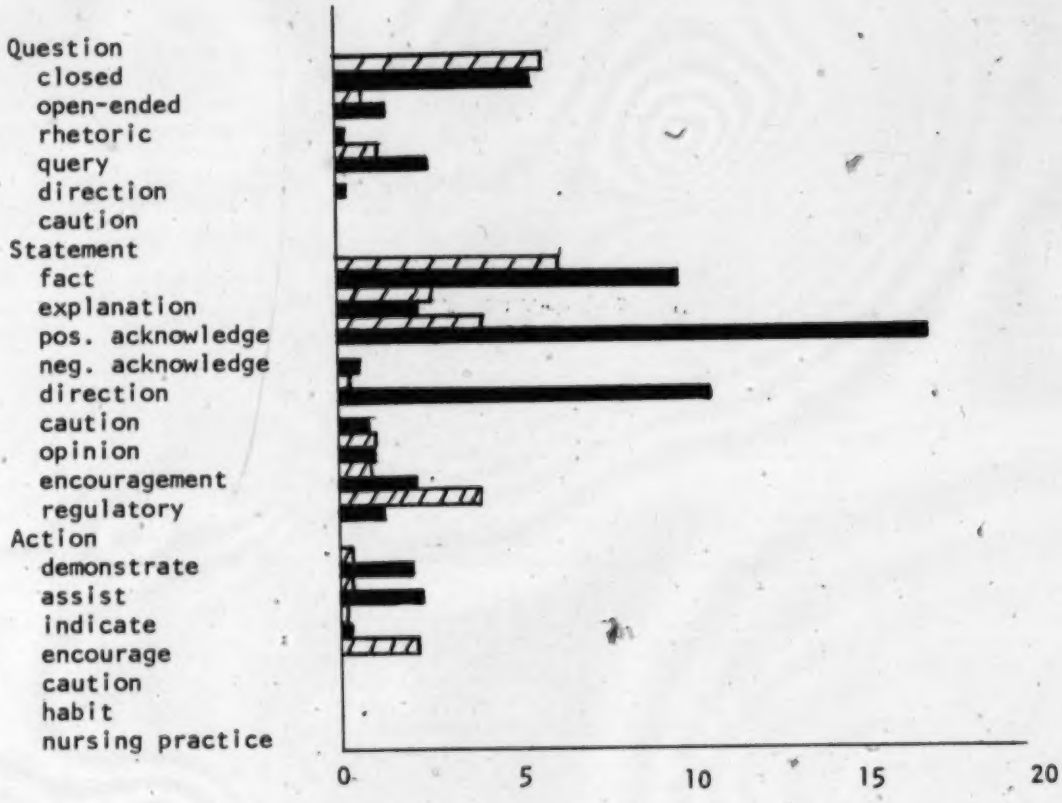

Fig. 6. Average Clinical Instructor Profile

patient

student

TABLE 11

CLINICAL INSTRUCTOR BEHAVIOR OBSERVATION TOOL

DATE:	SUBJECT:	#STUDENTS:	#PATIENTS:	
TIME	DIRECTION	QUESTION		
			Caution	
			Direction	
			Query	
			Fact - open	
			- closed	
			- rhetoric	
			Other	
			Student	
			Patient	
		STATEMENT		
			Regulate	
			Encourage	
			Opinion	
			Caution	
			Direction	
			Explanation	
			Acknowledge-negative	
			-positive	
			Fact	
		ACTION		
			Nursing practice	
			Habit	
			Caution	
			Encourage	
			Indicate	
			Assist	
			Demonstrate	

becomes increasingly important to validate the study.

The tool is intended to be used to check every observable behavior. Time need only be provided at intervals as long as the beginning and ending time of the session is indicated.

The check list could be used by a team listening to a tape recording of an interaction with non-verbal behaviors supplied by an observer or it could be used by a team of observers watching a videotape of a clinical teaching session.

Repetitions of this study on larger populations of clinical instructors, in a variety of settings should help to confirm the categories of behavior.

Possibly new categories would be added. Hopefully, with a larger data base it will be possible to decrease the number of categories by collapsing infrequently observed behaviors into a category labelled "other." This would make the tool more manageable.

Repetition of the study might also assist in determining the best timing of observation sessions.

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS

This final chapter contains a summarization of the study, conclusions derived from the study, implications for use of the designed tool and suggestions for further research.

SUMMARY

The use of anthropological field methods in education is not new. It is relatively rare though to find this methodology used in nursing education research. The term field methods is very broad and can have many different interpretations. This study involved a non-participant observer in the field (clinical setting) and therefore fell into the broad category of field study. Generally, field studies are used to help generate hypotheses and describe descriptive data of behavior patterns found in particular groups and situations chosen for study (Brandt, 1972). The advantages of this type of study is its relevance to important social problems and its immediate application.

The purpose of this study was to register, record and analyze actual observed behaviors of nursing instructors while interacting with a student and a patient in the clinical setting.

A review of the nursing, medical and dental literature on clinical instruction provided many characteristics of effective clinical teaching which were used in the evaluation of clinical instructors. The literature review also indicated that many of these characteristics had never actually been observed and documented systematically. They were derived mainly from critical incident reports of students and instruc-

tors, the ideas of clinical instructors about what good clinical instruction entailed, and narrative notes and impressions of educational consultants and trained observers who actually observed clinical teaching.

To document the behavior of clinical instructors, the researcher accompanied four clinical nursing instructors in a diploma nursing program, associated with a large urban teaching hospital. Tape recordings of verbal interaction and narrative notes of non-verbal interactions were made whenever an instructor, a student nurse and a patient interacted as a triad. The analysis of these data led to the identification of 22 instructor behaviors in the descriptive categories of question, statement or action. These behaviors had three directions: the patient, the student and others, producing 66 combinations.

The tapes and notes generated 1707 behaviors which were coded by direction and description. The resulting data were analyzed by category of behavior and by subject to identify patterns of instructor's behavior.

The results of the analysis were:

1. Most observed behaviors of the clinical instructor were directed to the student.

2. Instructors used more statement behaviors than questions or actions.

3. Most questions asked were of a closed variety.

4. Most statements used were to give the student positive acknowledgement followed by direction and information giving.

5. Non-verbal behaviors did not have a pattern of frequency of use.

6. Behaviors directed toward the patient were mainly closed questions, fact giving, positive acknowledgement or regulatory in nature.

CONCLUSIONS

The conclusions which can be derived from this study are:

1. That the characteristics of effective clinical teaching which can be drawn from a literature review of nursing, medical and dental journals were mainly generalizations, made by students, observers or the instructors themselves, about the intentions of the instructor's behaviors. The behaviors themselves were not specific and there was no evidence that any two individuals interpreted the same intentions from the same situation. The characteristics themselves were composed of different behaviors and different combinations of behaviors.

2. That prior to this study, no evidence was found to indicate that any researcher had catalogued specific behaviors in the clinical setting. Individual behaviors have been discussed, i.e., percentages of high and low level questions asked by medical preceptors (Foley & Smilansky, 1979), but the types of possible behaviors were not present in the literature.

3. That the four clinical nursing instructors involved in this study used similar types of behavior in the clinical setting.

4. That a graphic demonstration of the percentage use of each behavior provided a visualization of what the instructor did in the clinical setting.

5. That a Behavior Observation Tool was developed to be used

in recording observable verbal and non-verbal behavior of nursing instructors in the clinical setting.

IMPLICATIONS FOR USE

Personal Uses

It is difficult for an individual to obtain feedback on clinical instruction. Those individuals normally involved in this setting are often preoccupied. The student is a learner and has the added stress of observation for evaluation of herself to cope with. The patient has his own stresses related to illness, hospitalization, etc., as well as that of being "practiced-on" by the student nurse. Neither are in a good position to evaluate clinical instruction. An objective "outsider" with an impersonal check list tool could provide a clinical instructor with a profile of what she does. How she does it is another facet of the evaluation and another topic. Patient acceptance of an observer in the clinical setting in this researcher's experience, should be no problem.

A profile generated from the observer's data could make the individual more aware of the behaviors she practices most frequently or those she omits all together. With this information the instructor could become more aware of "how" she behaves, although that information will not provide the basis for comparison with the behavior of other clinical instructors until comparative research is undertaken.

Should a bank of profiles become available with use of the tool and should someone correlate student evaluation of clinical instruction with profiles, the individual instructor could compare her profile with that of others.

Administrative Uses

An instructor profile, as presented, does not have any place in administrative evaluation on its own. The small but significant aspect of clinical instruction assessed here is one component of a multi-faceted domain. Behaviors identified have not been correlated with student or peer evaluation to determine whether they are positive or negative evaluators. Also, the value of specific behaviors will change with the circumstances, e.g., factual statements might be more appropriate with beginning students than with students nearing the end of the program.

If, on the other hand, a clinical evaluation has been made, by other means, the data accumulated by use of the Behavior Observation Tool might assist in identification of specific behaviors which led to the evaluation. For example, if a clinical instructor were evaluated poorly by student evaluation, an examination of an instructor's behavior profile might help to understand the factors related to student concerns.

Developmental Uses

Information about clinical instruction in nursing, compiled by use of a Behavior Observation Tool, has developmental uses. It can be used to establish general behavioral norms and to provide a basis for building and testing behavioral theory in clinical nursing instruction.

IMPLICATIONS FOR RESEARCH

The Behavior Observation Tool designed to describe the nursing

clinical instructor's behaviors could be used by nursing instructors individually or collectively to examine patterns of behavior. It could be used also by nurse researchers to develop relationships between specific behaviors and student responses. This type of information could assist in putting an evaluative emphasis on the instructor profile.

The following research could augment this study:

1. Additional research to confirm the categories in the Behavior Observation Tool or to modify the tool;

2. Repetition of this study with a larger instructor group to develop behavioral norms for diploma nursing instructors;

3. Repetition of this study with a sample of baccalaureate nursing instructors and with community college nursing instructors to develop behavioral norms;

4. Studies of behavioral norms in relation to instructor variables, e.g., age, sex, education, years of teaching, etc.;

5. Studies of behavioral norms and contextual variables, e.g., geographic setting, type of institution, etc.;

6. Studies of behavioral norms and student evaluations, peer evaluations and administrative evaluations;

7. Studies of clinical behavioral norms and behavior in other areas of nursing instruction, e.g., classroom, laboratory, pre and post-conferences, etc.

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APPENDIX 1

CONSENT FORM A

I, _____, patient at the University of Alberta Hospital, grant permission to CAROLINE PARK , graduate student at the University of Alberta, to accompany the nursing instructor and student nurses on this ward, and record conversations which they may have with me.

I understand that the conversations will never be used verbatim, merely used to exemplify types of nursing instruction. All tapes and notes will be destroyed following completion of the thesis. Neither my name nor any identifying information about myself will be used.

Signature _____ Date _____

CONSENT FORM B

I, _____, student nurse at the University of Alberta Hospital School of Nursing, grant permission to CAROLINE PARK , graduate student at the University of Alberta, to accompany my clinical nursing instructor when she supervises my giving of patient care, and record conversations between my instructor, my patient and myself.

I understand that the conversations will never be used verbatim, merely used to exemplify types of nursing instruction. All tapes and narrative notes will be destroyed following completion of the thesis. Neither my name nor any identifying information about myself will be used.

Signature_____Date_____

CONSENT FORM C

I, _____, nursing instructor at the University of Alberta Hospital School of Nursing, grant permission to CAROLINE PARK , graduate student at the University of Alberta, to accompany me while I supervise student nurses and record conversations which occur at that time.

I understand that the tapes and narrative notes will be used to generate categories of behavior used by nursing instructors in the instructor-student-patient triad, and that specific examples may be used. The tapes and notes will be destroyed following completion of the thesis. Neither my name nor any identifying information about myself will be used.

Signature_____ Date_____

APPENDIX 2

DATA CODING SAMPLE

INSTRUCTOR BEHAVIOR	Direction	Type	Description
Did she fall asleep?	2	1	1
OK	2	2	3
He's really asleep	2	2	7
(puts on mask)	3	3	7
(takes off watch)	3	3	7
(helps student position child)	2	3	2
Do you want him awake?	2	1	1
OK	2	2	3
OK	2	2	3
(strokes child)	1	3	4
Did you say maybe he was awake all night?	2	1	1
He's so tired.	2	2	7
OK	1	1	1
Are you going to wake up for us?	1	1	1
hum?	1	2	9
Are you going to restrain him like yesterday?	2	1	1
(assists with restraints)	2	3	2
(still poking and trying to wake child)	1	3	4
Is his IV restarted now?	3	1	1
Roll him onto his side.	2	2	5
I just don't like doing anything while he's sleeping.	2	2	2
(settling child)	1	3	4
(holding toy up to child)	1	3	4
Use a forcep.	2	2	5
You've got your fingers right in there.	2	2	2
OK?	2	1	4
Is that from the tape?	2	1	1
(points at raw area on skin)	2	3	3

APPENDIX 3

VALIDATION CODING SAMPLE

INSTRUCTOR BEHAVIOR	TYPE	DIRECTION	DESCRIPTION
We're going to do them the way you just told us because that's the best way.	statement	to patient	
No, she's doing OK.	statement	to patient	
Yeah, she's doing that.	statement	to patient	
Good, super.	statement	to student	
I'm glad that you're helping us.	statement	to patient	
That really is good though...	statement	to patient	
Actually, um, you would probably just need a 2x2 for that last one and then open it up to a 2x4.	statement	to student	
OK, that's good.	statement	to student	
Yup.	statement	to student	
And then this afternoon when you do it you can just use two 4x4's extended on each other.	statement	to student	
OK?	question	to student	
Yeah.	statement	to patient	
Oh, that's good.	statement	to patient	
Umhum.	statement	to patient	
Um, they do it once in the morning and once in the afternoon after lunch.	statement	to patient	
Oh just in the evening, eh?	question	to patient	